Volume 169 No. 19

Oil, Paint and Drug Reporter

The Chemical Market Authority Since 1871

May 7 1956

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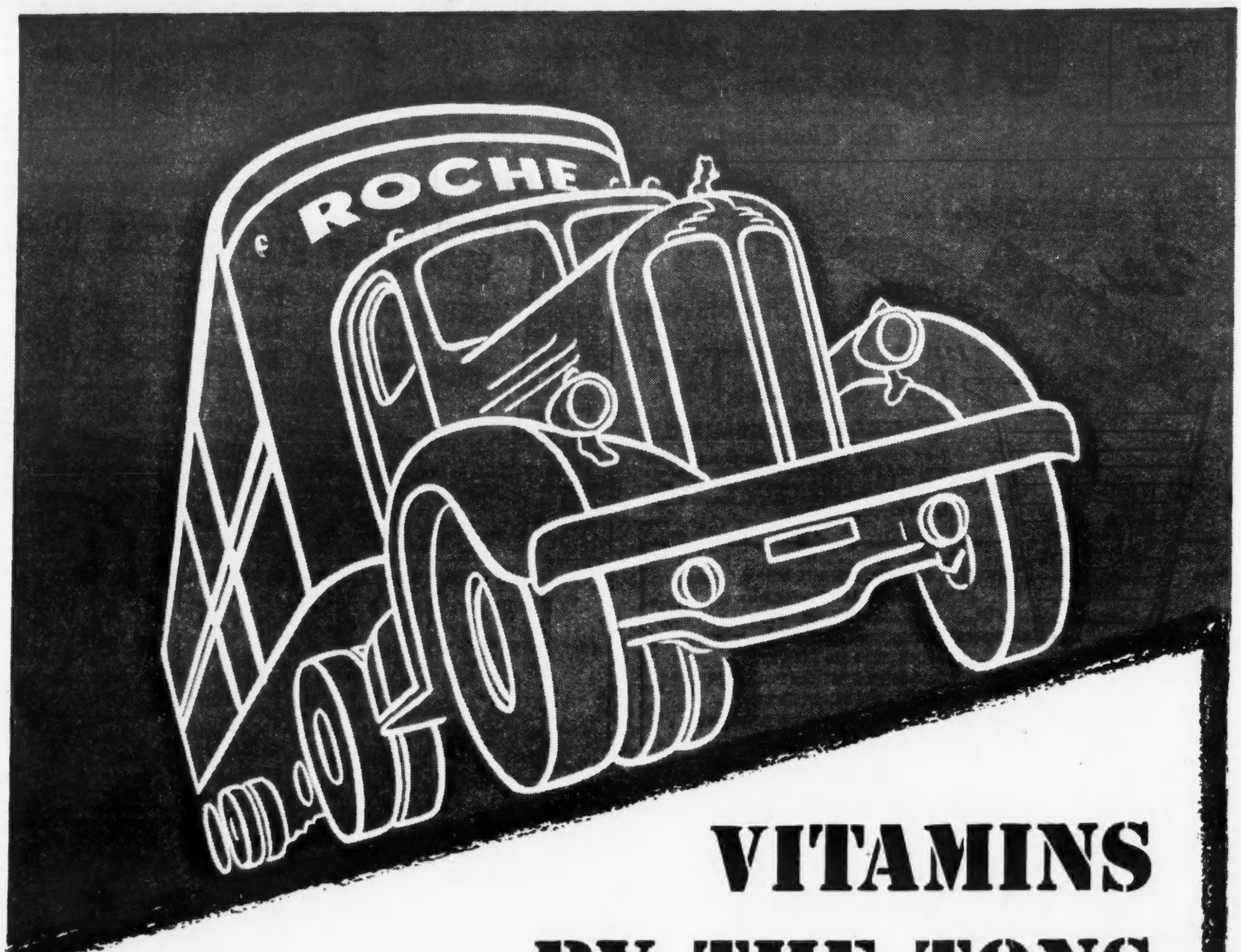

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Oil, Paint and Drug Reporter

Vol. 169 No. 19 30 Church St., New York 7, N. Y. May 7, 1956

Aniline Project Planned

American Cyanamid Company will start immediate construction of a plant to produce aniline by a catalytic process at the site of the company's Willow Island, W. Va., plant, according to V. E. Atkins, general manager of its organic chemicals division.

The plant will have a rated annual capacity of 24,000,000 pounds. Design work has been completed, and completion of construction is scheduled for the fall of 1957.

The Willow Island plant is located in Pleasants County, W. Va., about seventeen miles up the Ohio River from Parkersburg.

Decision to build at Willow Island was made, Cyanamid said, because the rubber industry in Ohio and the surrounding area provides a substantial outlet for aniline.

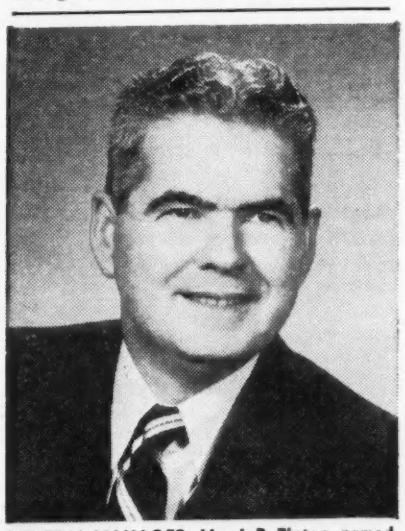
Cyanamid at present claims to be the leading producer of aniline at its Bound Brook, N. J. plant. It is an almost chemically pure intermediate, water white in color, that has important uses in the manufacture of dyes, rubber chemicals, veterinary medicines and other intermediates, such as diphenylamine.

The new plant will use for the first time a fluid bed reactor and new catalyst in the manufacture of aniline from nitrobenzene by the reduction process. Units to be built in the plant will be for nitric acid, nitric acid concentration, sulphuric acid concentration, acid mixing, hydrogen, nitrobenzene and aniline.

Cyanamid's new engineering and construction division will have line responsibility for this construction project, which has been designed by Chemical Construction Corporation. It is expected that a number of contractors and subcontractors in the area will participate in the construction.

Zirconium Expansion Sanctioned As Three New Firms Enter Picture

The nation's zirconium industry has gotten the green light to go ahead with a major expansion. The signal, flashed last week by the Atomic Energy Commission with the signing of contracts to meet increasing short and long-range reactor development requirements for both zirconium metal and hafnium oxide, brings three new commercial suppliers into the picture—U. S. Industrial Chemicals Company, a division of National Distillers Products Corporation, New York; NRC Metals Corporation, a subsidiary of the National Research Corporation of Cambridge, Mass., and Carborundum Metals Company, Akron, N. Y.



GENERAL MANAGER: Marsh B. Tipton, named general manager and a vice-president of Canadian Titanium Pigments, Ltd., a National Lead Company subsidiary, with headquarters in Montreal, Canada.

The three AEC pacts, covering a five-year period, call for the annual delivery of 2.2 million pounds of zirconium, subject to the availability of funds, at an average cost of about $14 million a year.

USI to Supply a Million Pounds

USI will supply a million pounds annually from new facilities to be constructed at Ashtabula, Ohio. The company expects to complete by July, 1957, a 1.5 million-pound-per-year plant which will produce reactor grade zirconium sponge. This, it says, will sell for $7 a pound to commercial users as compared with the present price of $14.

NRC Metals will supply the commission with 700,000 pounds of zirconium annually from a plant to be put up near Pensacola, Fla. This new NRC installation will be built on a 100-acre site adjoining the petrochemicals plant of Escambia Bay Chemical Corporation, which is owned jointly by Electric Bond & Share Company, United Gas Corporation and National Research.

Carborundum Metals will supply 500,000 pounds of hafnium-free reactor grade zirconium annually from a new facility to be constructed at Parkersburg, W. Va.

The contracts are for fixed unit prices which are subject to revision within established ceilings at the end of each year of production. Production is expected to begin the latter part of next year from new plants to be financed entirely by the suppliers.

USI, NRC Metals and Carborundum Metals were among ten firms which responded to an invitation to supply the gov-

—Continued on page 72

Sulfur Facility Contract Is Signed

A contract for construction of a plant to manufacture sulfur from hydrogen sulfide has been signed by Jefferson Lake Sulphur Company, New Orleans, La., and Pacific Petroleums, Ltd., Calgary, Alta., Canada. Jefferson Lake and Pacific Petroleums at the same time contracted for sale of the production of the plant.

Sulfur will be manufactured from hydrogen sulfide extracted from the natural gas of the Peace River area of Alberta and British Columbia. This gas will flow into the Westcoast Transmission

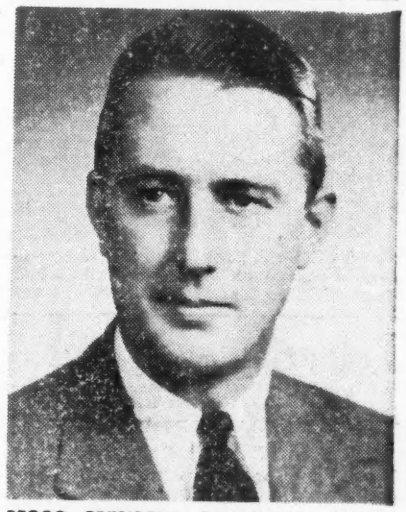
—Continued on page 46

United Dye Buys Bon Ami

United Dye & Chemical Corporation has bought control of Bon Ami Company. Alexander L. Guterma, chairman of United Dye, said the controlling interest was bought from a group of investors headed by Nathan Cummings and Arthur Rosenberg for an undisclosed amount.

Chemical 'Stepchildren' Win Cinderella-Like Industry Roles, CCDA Meeting Is Informed

A number of chemical "stepchildren," many of them with little-known uses and almost unpronounceable names, were brought out of their dark laboratory corners last week and put under a bright light for members of the Commercial Chemical Development Association to look at during their spring meeting at Pocono Manor, Pa. And when it was all over, the CCDA people realized that these "unimportant" items of a few decades ago were now playing important and vital roles in the American chemical industry.



BECCO PRESIDENT: Frederick A. Gilbert, named head of Becco Chemical Division of Food Machinery & Chemical Corporation, to succeed Dr. Max E. Breischger, who has retired.

S. Becker Treat, sales manager of Lindsay Chemical Company, West Chicago, Ill., brought a number of rare earths out of their corners and told what they do:

What Rare Earths Do

- Fill an important place in the making of arc carbons, which contain a rare earth mixture, and are necessary in movie projectors, klieg lights and searchlights.
- Put the spark in a cigarette lighter due to the pyrophoric rare earth metal content of the flint.
- Go into the production of alloy and stainless steels, either as misch metal or as chemical salts.
- Help producers of aluminum, using bauxite of high alkalinity, in providing a solution that prolongs the use of their filter cloth.

Mr. Treat went on to talk of other items:

- Cerium oxide, used for polishing lenses, mirrors, TV picture tubes and granite and to tint sun glasses.
- Lanthanum, used along with thorium, in making special glass for aerial camera lenses.
- Neodymium, the color for the orchid-tinted glass that is attracting attention in the better shops.
- Cerium salt of a very pure grade, finding its place in the manufacture of special glass for radiation protection windows.

Mr. Treat said the rare earths constitute a "new set of chemical tools ready to go to work on a variety of jobs," and

—Continued on page 50

Titanium Dioxide Works Taken Over by N. J. Zinc

New Jersey Zinc Company and American Cyanamid Company, New York, have announced that an agreement of sale entered into between them in 1954 has been carried out with the turning over of Cyanamid's Gloucester City, N. J., titanium dioxide pigments plant to New Jersey Zinc.

Cyanamid has completed its new titanium dioxide plant at Savannah, Ga. New Jersey Zinc plans to make shipments of some grades of titanium dioxide from Gloucester City about the end of this month.

Concurrently, United States Radium Corporation, New York, has entered into a contract to take over from New Jersey Zinc its luminescent pigment business. The pigments will be manufactured at U. S. Radium's Whippany, N. J., plant.

House Unit Keeps Its Plant Veto Rights

The house appropriations committee last week refused to give up its authority to veto plans of the Department of Defense to discontinue commercial activities which compete with private industry. Although urged to repeal the controversial section 638 of the department's appropria ion bill, or at least relax some of the restrictions to reduce the paperwork on the department, the committee refused both requests.

The committee said that it had received no adequate or convincing justification for deletion of the section, and that the house is being asked to re-enact it in the department's new appropriation bill to come up for consideration this week. In the new bill the section will be known as section 633.

One of the chief points at issue between the department and the committee over the section is the department's desire to end its paint manufacturing operations at Norfolk, Va., and Mare Island, Calif. The committee vetoed these plans last year and while the paint industry has said that it could meet all of the navy's needs for

—Continued on page 83

Barium Oxide Output Boosted 30 Percent

Production of barium oxide by the Westvaco Mineral Products Division of Food Machinery & Chemical Corporation, New York, is being increased approximately 30 percent.

Current expansion of the Modesto, Calif., plant is based on a new process that is a result of several years of research and pilot development.

For more than a quarter of a century, according to Westvaco, it has been the nation's leading producer of barium oxide. This and other related products are derived from its own deposits of barite in northern Nevada.

Reserpine Synthesized as Bar to Import Dependence

The United States may have a method of producing reserpine and related drugs synthetically in the event supplies of crude rauwolfia root are cut off.

The rauwolfia plant is obtained currently by pharmaceutical manufacturers only from various overseas areas where embargoes, transportation difficulties and other hindrances pose continuous supply problems for this country's producers.

Development of a method of arriving at a synthetic reserpine has been reported in a paper by Squibb Institute for Medical Research scientists Dr. Frank L. Weisenborn and Dr. Patrick A. Diassi, appearing in the May 5 issue of the *Journal* of the American Chemical Society.

The discovery in the laboratories of Squibb Division of Olin Mathieson Chemical Corporation, New York, involves a key reaction in the synthesis of reserpine.

The Squibb scientists with Dr. Oskar Wintersteiner, director of Squibb Institute division of organic chemistry, have spent several years pursuing the secrets locked up in the complicated reserpine-like substances.

They were dealing with a chemical structure which could exit in sixty-four different forms. These forms differ from each other only in the spatial arrangements of their atoms—and only one of these forms, that found in nature, is known to be active.

One critical problem was to introduce a certain hydrogen atom in the same spatial arrangement as is found in the natural substances.

The reaction reported by the Squibb scientists solved this problem. It is applicable to a wide variety of synthetic approaches to reserpine and like substances starting from readily available chemicals.

Synthetic Rubber Facilities Planned to Meet Needs of 1960

The synthetic rubber industry has scheduled expansion projects that by December 31, 1957 will provide sufficient productive capacity to meet total needs of both synthetic and natural rubber estimated for 1960. This was reported to congress last week by President Eisenhower on the basis of surveys made by an ad hoc rubber committee set up by the Office of Defense Mobilization.

SALES CHIEF: J. Ernst Miller, new vice-president in charge of sales for Goodrich-Gulf Chemicals, Inc., Cleveland, Ohio.

According to the committee, total United States requirements for new rubber—natural and synthetic—may by 1960 reach a level of about 1,700,000 long tons annually. As of December 31, 1955, the US productive capacity for synthetic was more than 1,250,000 tons. By January 1, 1958, reported planned expansions would bring synthetic capacity to about 1,700,000 tons.

Expansions Hinge on Demand

Mr. Eisenhower stated that the planned expansions are to some degree dependent on the growth of demand in this country and overseas. They include commitments already reduced to definite contracts; but also less definite expectations which may not come to fruition.

At the present time a part of the rubber requirements of the United States can be met only by natural rubber, but he indicated that it may be only a matter of time before even the needs for natural rubber can be supplied by the synthetic producers.

This is because of research developments in the field of synthesizing natural rubber. Three of the rubber companies have reported success in synthesizing material with composition and properties similar to natural rubber.

The committee suggested that immediate consideration be given to whether the national security requires governmental action to foster the industrial development of the new process, but Mr. Eisenhower decided that inasmuch as the United States already has an adequate stockpile of natural rubber, there is no immediate security problem.

"In the long run, however," he said,

—*Continued on page 82*

Petrochemical Unit Is Slated for Japan

Scientific Design Company, New York, has completed contract formalities with Mitsui Petrochemical Industries, Ltd., for the construction of what is described as Japan's first and largest major petrochemical project—a $30 million facility for the production of chemical intermediates for the manufacture of synthetic textile fibers and other chemical products.

SD will design and engineer plant units, within the project, for the manufacture of ethylene oxide, ethylene glycol and cumene, three of the key products planned by Mitsui in the initial phase of the program.

These plants will be based on SD processes, and SD will supervise construction and initial operation. In the second phase of the project, Mistui will add facilities for the production of dimethyl terephthalate.

The project will be located in Iwakuni City, and scheduled completion date is November, 1957. As outlined by SD, the processes to be employed are as follows:—Ethylene oxide by direct air oxidation of ethylene, cumene by alkylation of benzene with propylene and ethylene glycol by hydration of ethylene oxide. Each process was evolved by SD.

Ammonium Sulfate Cut By United States Steel

United States Steel Corporation, Pittsburgh, Pa., has announced a price reduction of $10 per ton on bulk quantities of ammonium sulfate, f.o.b. producing plant, effective today.

Under the new price schedule bulk prices will be $32 per ton at the following producing plants:—

Clairton, Pa.; Gary, Ind.; Joliet, Ill.; Cleveland, Ohio; Lorain, Ohio; Fairfield, Ala.; Duluth, Minn., and at the Fairless plant, Morrisville, Pa.

At the company's Geneva and Ironton, Utah, plants, the new price has as yet not been determined.

Raymond Offers Chemicals

Raymond Laboratories, Inc., has announced its entrance into the commercial chemical field. The St. Paul, Minn., firm is making available from stock commercial quantities of sodium lauryl sulfate, quaternary ammonium compound, and thioglycolic acid and its salts.

The Week's Price Changes

Bulk Antibiotics, Copra, Carnauba Wax, Dried Blood Higher Adipic Acid, Calcium Pantothenate, Melamine, Shellac Lower

Prices Advanced

Blood, dried, Chicago, 25c. per unit-ton (p. 41)
Cassia, Batavia "A", ½c. per lb. (p. 75)
"B", ½c. per lb.
"C", ½c. per lb.
Corinje, "A", ½c. per lb.
"B", ½c. per lb.
"C", ½c. per lb.
Cinnamon, "0000", 6c. per lb.
Copra, $5 per ton (p. 76)
Cottonseed meal, $1 per ton (p. 76)
Dihydrostreptomycin, ½c. per gram (p. 65)
Fishmeal, $1 per ton (p. 41)
Fishscrap, $1 per ton (p. 41)
Greases, choice white, ¼c. per lb. (p. 76)
Oil, coconut, crude, ¾c. per lb. (p. 76)
Lime, Mexican, 15c. per lb. (p. 75)
W.I., 15c. per lb.
Menhaden, crude, ⅛c. per lb. (p. 76)
Oleo, 1½c. per lb. (p. 76)
Palm, 1c. per lb. (p. 76)
Rapeseed, ½c. per lb. (p. 76)
Safflower, 1½c. per lb. (p. 76)
Oleo stearine, ¾c. per lb. (p. 76)
Peanut meal, $2 per ton (p. 76)
Penicillin, bulk, ¾c. per 1,000,000 International units (p. 65)
Potato starch, Idaho, 6 10c. per lb. (p. 42)
Streptomycin, bulk, ½c. per gram (p. 65)
Tankage, Chicago, 25c. per unit-ton (p. 41)
Waxes, carnauba, crude, 2c.-3c. per lb. (p. 76)
refd., 2c.-3c. per lb. (p. 76)
Ouricury, pure refd., 2c.-3c. per lb. (p. 76)

Prices Reduced

Acid, adipic, 3c. per lb. (p. 43)
Linseed, ½c. per lb. (p. 76)
Calcium pantothenate, dextrorotatory, USP, 1½c. per gram (p. 65)
Camphor, technical, 4c. per lb. (p. 65)
Caraway seed, Dutch, ½c. per lb. (p. 75)
Casein, Argentine, ½c. per lb. (p. 70)
Castor pomace, $5 per ton (p. 41)
Celery seed, Indian, ½c. per lb. (p. 75)
Lard, cash, ⅛c. per lb. (p. 76)
Mace, East Indian, 5c. per lb. (p. 75)
Melamine, 3c. per lb. (p. 43)
Oil, grapefruit, 5c. per lb. (p. 75)
Linseed, ½c. per lb. (p. 76)
Ocotea cymbarum, 5c. per lb. (p. 75)
Peanut, crude, 1c. per lb. (p. 76)
refd., 1c. per lb.
Sperm, 1c. per lb. (p. 76)
Poppy seed, Argentine, ½c. per lb. (p. 75)
Dutch, ½c. per lb.
Iranian, ½c. per lb.
Shellac, orange grades, 2c. per lb. (p. 70)
Tin chemicals, 0.4c. to 0.75c. per lb. (p. 35)

OPD Price Index

THE OIL, PAINT AND DRUG REPORTER'S relative record of prices of chemicals and related materials is currently as follows:—

(100=1949 average)

May 4, 1956	April 27, 1956	May 6, 1955
109.13	109.06	106.82

Borax, Potash Firms May Unite

Borax Consolidated, Ltd., London, England, has decided to form a company in the United States to take over the greater part of the company's assets and operations in America. Key feature of the formation of the new American company would be merger of United States Potash Company, New York, into the new American firm.

Completion of the transfer of assets, expected shortly, will bring to an American corporation the company's boron deposits located at Boron, Calif., as well as factories for the production of borax, boric acid, inorganic and organic boron compounds.

Directors of Borax Consolidated announced that preliminary conversations are taking place with United States Potash, in which Borax Consolidated owns a substantial stock interest, with a view to the possible merger of US Potash and the new American company.

Borax is presently engaged in installation of improved mining methods costing $18 million.

US Potash is completing a further expansion of its plant at Carlsbad, N. M., at a cost of approximately $3 million.

Hydroxyethyl Cellulose Is Slashed by Carbide

A price reduction of up to 16 cents per pound on "Cellosize" hydroxyethyl cellulose, a water-soluble protective colloid and thickening agent, has been announced by Carbide & Carbon Chemicals Company, New York, a division of Union Carbide & Carbon Corporation.

The new prices are:—20,000 pounds or more, $1 per pound; 2,000 pounds to 19,999 pounds, $1.05; 125 pounds to 1,999 pounds, $1.07; less than 125 pounds, $1.17 per pound. These prices apply on the WP-09, WP-3, WP-40, and WP-300 grades.

SOCMA SPEAKER: Carlos P. Romulo, Philippines ambassador to the United States, who will speak at the banquet of Synthetic Organic Chemical Manufacturers Association, May 17 at Skytop, Pa.

Moore Corp. Chooses Pres.

John B. Moore Corporation, Nutley, N. J., has appointed Irving Q. Sarlin as president. Mr. Sarlin joined Moore in 1952 as a sales engineer.

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ADMA'S NEW PRESIDENT: Dr. Ernest H. Volwiler, of Abbott Laboratories, North Chicago, Ill., elected president of the American Drug Manufacturers Association for 1956-57. (Special report on ADMA meeting will be found on page 53.)

Pyrethrins Pact Is Signed in Africa

Plans for on-the-spot production of pyrethrins from pyrethrum flowers in Africa have been announced by African Pyrethrum Development, Inc., following signing of a contract by growers on Belgian Congo and Ruanda-Urundi for a $500,000 processing plant, near Goma, Belgian Congo.

An announcement from Goma stated that the growers have signed a contract for the processing plant, which they expect to handle all of their flower production not otherwise processed locally before the end of 1957.

These growers subscribed all of the capital of the Kivu Agricultural Products Processing Company (Trapak).

Extraction of pyrethrins on the spot will make possible shipment of a few pounds of extract in place of 440-pound bales of flowers now consigned to American extraction plants.

The new plant is to be constructed by a Belgian company under specifications calling for "25 percent of crude extract or a refined extract which will meet American specifications for the manufacturing of aerosol bombs."

Announcement of the Congo development at Goma came within a few weeks after word of similar plans from the other major supplier of African pyrethrum, British East Africa, comprising Kenya, Tanganyika and Uganda (OPD, 3/26/56).

Chemical Purchasing Funds Awarded to Iran, Thailand

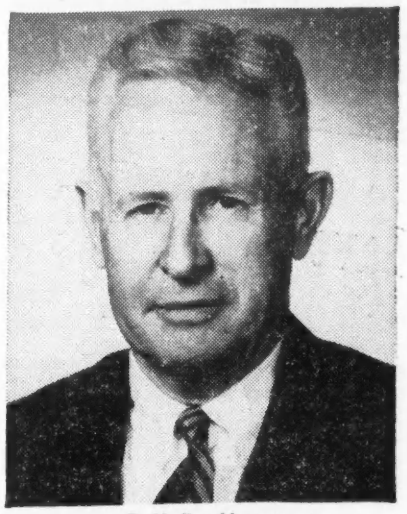
Iran and Thailand were issued procurement authorizations totaling $550,000 by the International Cooperation Administration last week for the purchase of chemicals and chemical preparations from world sources.

The authoriation to Iran amounted to $350,000 and was covered by authorization No. 65-390-99-B5-6202 and the authorization for Thailand was for $200,000 and was covered by authorization No. 93-390-99-A6-6206.

Iran also was issued an authorization of $400,000 to purchase medicinal and pharmaceutical preparations from world sources under authorization No. 65-370-99-B5-6201. Vietnam received two authorizations to purchase drugs and medical supplies totaling $114,900 under authorizations No. 30-82-075-5-60182 and 60221.

Growth Company's Problem: To Keep Growing—That Means Vision, Imagination and Work

The big problem of a growth company today—to keep growing, and at a rate significantly above the average—requires vision and imagination, plus a tremendous amount of hard work. So said R. Lindley Murray, chairman of the board of Hooker Electrochemical Company, Niagara Falls, N. Y., in accepting the 1956 chemical industry medal of the American Section of the Society of the Chemical Industry, at the Waldorf-Astoria hotel, New York.



R. Lindley Murray

In his acceptance address, "The Care and Feeding of a Growth Company," Mr. Murray also likened management's position and responsibilities in a growth company to those of the conductor leading a large and complex orchestra who must keep all the varied and intricate instruments in the industrial symphony in "near-perfect balance and harmony."

Growth Companies Are Defined

Defining a growth company as "one which has grown at a faster rate than the average of all companies and gives every evidence of continuing to do so," Mr. Murray pointed out that of the 4.5 million companies in the U. S., only a few—perhaps a thousand—can be considered growth companies.

Using Hooker as an example, Mr. Murray said that whereas the Dow-Jones industrial average increased about 240 percent in the last twenty years, Hooker stock increased nearly 6,000 percent and sales rose from about $4.5 million to over $90 million in the same period. "I think," he said, "anyone would call this growth."

"It would be nice if we could pretend that our extraordinary growth is due to nothing other than managerial genius," Mr. Murray said. "But the fact is that we have been to some extent almost automatic beneficiaries of being part of a growth industry. The basis for that growth is in evidence wherever we look around us."

"It is hardly surprising," he stated, "that the Hooker Electrochemical Company, as part of this dynamic industry, has shown a striking growth of its own. Had we been manufacturers of whaling ships, or anvils, or buggy whips—and shown the same rate of growth—we could lay fair claim to being the world's most ingenious industrialists. But as manufacturers of chemical products we could hardly fail to grow."

"Naturally, in seeking reasons for growth it is a temptation to emphasize the

—*Continued on page 82*

GAF Future Weighed By Committee in House

The house interstate commerce committee was urged last week to give favorable consideration to legislation permitting sale of General Aniline & Film Corporation pending a final decision on whether the company had been improperly seized by the government during World War II.

Rep. Sterling Cole of New York, sponsor of a bill authorizing such sale, said that a return of the chemical firm to its former owners would be against public interest and would involve substantial and indefinite appropriations from the federal treasury.

Walter Germann, managing director of Interhandel, a Swiss holding company claiming rightful ownership of General Aniline, claimed that immediate return of the company to its Swiss owners would serve the best interests of the United States as well as Switzerland.

Escambia Elects Haslanger

Escambia Bay Chemical Corporation, Cambridge, Mass., has elected R. U. Haslanger, vice-president and general manager, to the board of directors.

Ti-Tetrachloride Unit Operating in Natrium

Columbia-Southern Chemical Corporation has placed in operation at Natrium, W. Va., what is said to be one of the largest titanium tetrachloride plants in the United States. The plant is situated on the Ohio River and is integrated with Columbia-Southern's chlorine producing plant.

According to E. T. Asplundh, president, the plant will have an annual production capacity of 35,000 tons. Basic process design of the plant was by Columbia-Southern and the engineering and construction program was completed by Catalytic Construction Company, Philadelphia.

Construction of the multi-million dollar facility was accomplished in less than twelve months and the initial shipments of titanium tetrachloride are ahead of the original time schedule.

The plant covers approximately seven acres of land and is divided into separate areas for raw material and product storage, ore chlorination and product purification.

Outdoor type construction is utilized. Equipment structure and distillation towers are as high as 110 feet. The entire plant is operated from two centrally-located control rooms equipped with specially-designed instruments integrated with a pictorial panel of the entire manufacturing unit.

Gulf Sulphur Corporation Control Is in New Hands

Bear, Stearns & Co. and E. J. Hudson, president of Hudson Engineering Corporation, Houston, Tex., have jointly purchased a majority interest in the voting stock of Gulf Sulphur Corporation. The price paid was not disclosed but the securities purchased have a current market value in excess of $12 million.

Olin to Double Chlorine, Caustic Unit in Alabama

A $7,500,000 expansion program to double electrolytic production of chlorine and caustic soda at its McIntosh, Ala., plant is being planned by Olin Mathieson Chemical Corporation, according to John O. Logan, vice-president and general manager of the industrial chemicals division.

The expansion will increase the plant's capacity to 250 tons of chlorine and 280 tons of caustic soda per day. Construction, which is already under way, is being handled by the Blaw-Knox Company, with completion scheduled for January, 1957.

The new addition will be equipped with 124 of the latest design Mathieson stationary-type mercury electrolytic cells. The cells produce chlorine, caustic soda and hydrogen by passing an electric current through a solution of common salt.

Docking Facilities Also Planned

The company also plans to build barge docking and loading facilities on the Tombigbee River adjacent to the McIntosh plant. These will be in operation by late summer of this year and will permit shipments by water from the plant to river destinations, the Gulf of Mexico and beyond.

The plant is presently supplying chlorine for water purification and sewage treatment to municipalities throughout the south and to industry for use in textile and paper bleaching and in the manufacture of insecticides, plastics, automotive antifreeze and other chemical products. The caustic soda produced is used primarily by the southern rayon, paper, petroleum and chemical industries.

The McIntosh operation is one of three major Olin Mathieson plants producing electrolytic chlorine and caustic soda. The other two are at Saltville, Va., and Niagara Falls, N.Y. Caustic soda by the lime-soda process is also manufactured at Saltville and at Lake Charles, La.

The company additionally markets chlorine and caustic soda produced at the

—*Continued on page 45*

Aluminum Smelters Ask Scrap Export Restrictions

The aluminum smelting industry is urging the government to put more restrictions on exports of aluminum scrap to bloster sagging business. At a recent meeting with officials of the Business and Defense Services Administration the industry's advisory committee recommended:

That licenses for exporting aluminum scrap not be granted in excess of 40 percent of the quarterly quota in any one month, retroactive if possible to the second quarter of 1956 and otherwise applicable to the third quarter.

That announcement of the quarterly aluminum scrap export quotas be made not later than fifteen days prior to the first day of the quarter, preferably thirty days.

That leaded foil aluminum scrap be included in the same category for export purposes as other forms of aluminum scrap, and made part of the quota.

That the export quota for aluminum scrap for any one month be not more than 1 million pounds, or a total of 1,500 tons per quarter. (The second quarter 1956 quota is 4,000 tons.)

That the government make no stockpile call for aluminum in the first half of 1956.

Atom Plant Proposed By Climax, Mallinckrodt

An agreement has been signed between Climax Molybdenum Company, New York, and Mallinckrodt Chemical Works, St. Louis, Mo., to submit to the Atomic Energy Commission a joint proposal for the construction and operation of a privately owned plant for the refinement of uranium compounds.

The agreement further states that in the event the proposal is accepted a jointly owned company would be formed to construct and operate such facilities. Under terms of the agreement Climax would be majority owner of the resultant company.

Synthetic Dye Industry Marking First Century

The chemical industry this year celebrates the 100th anniversary of William Perkin's discovery of a dye synthesis process. The century following the discovery has seen the development of a synthetic dye industry that has come to be one of the major pillars of the chemical industry. Following is a brief history of that development.

The processing of natural dye when William Perkin discovered the first synthetic material—at the mid-point of the last century—was a haphazard procedure.

It was completely dependent upon such variables as the quality of the annual growth of raw materials and the relative abilities of the individual manufacturers. The dye industry, as nearly everything else of that period—in spite of the fact that it was in the very midst of what history calls the Industrial Revolution—was as far removed as possible from being defined or practiced along scientific lines.

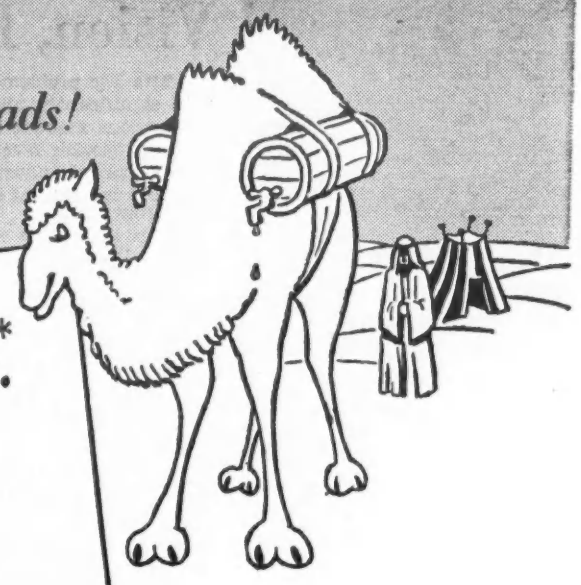
Even Perkin's discovery of the first synthetic dye, mauve, was a matter of chance, the inadvertant result of his search for a quinine synthesis. He had been using aniline as one of his raw materials and in one of the unsuccessful experiments a dark colored mass was formed that, when dissolved in alcohol, resulted in a violet liquid that had the power to dye silk and wool.

The complete hit-or-miss nature of the discovery is made more apparent by the fact that toluidine as an impurity in the compound made the dye synthesis possible, while without it the synthesis would not have been discovered.

Perkin, though essentially a scientist, had the business man's foresight to recognize the industrial possibilities of his invention and, after patenting the

—*Continued on page 46*

Paying Freight on Water is for the Nomads!



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If you must use T.S.P. Crystals, we hope you are located near a producing point. If you *can* use WESTVACO T.S.P. Anhydrous, we can save you real money. A phone call or letter will bring an exact quotation. Why not find out right now?

*L.C.L. delivery 250 miles from producing point. Get an exact quote on your savings.

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Association Meetings

American Institute of Chemical Engineers, Roosevelt hotel, New Orleans, La., May 6-9.

Association of Food and Drug Officials of the United States, joint meeting with Central Atlantic States Association of Food and Drug Officials, New Yorker hotel, New York, May 6-11.

Proprietary Association, annual meeting, Hollywood Beach hotel, Hollywood Beach, Fla., May 7-9.

Rutgers Pharmaceutical Conference, Rutgers University, New Brunswick, N. J., May 9.

American Chemical Society, national meeting, Atlantic City, N. J., September 16-21.

American Institute of Chemical Engineers, William Penn hotel, Pittsburgh, Pa., September 9-12.

American Institute of Chemists, annual meeting, Statler hotel, Boston, Mass., May 9-11.

American Society for Testing Materials, annual meeting, Chalfonte-Haddon Hall, Atlantic City, N. J., June 16-21. Pacific area national meeting and apparatus exhibit, Statler hotel, Los Angeles, September 16-22.

Chemical Institute of Canada, annual conference and exhibition, Mount Royal hotel, Montreal, May 28-30

Chemical Market Research Association, annual meeting, Biltmore hotel, New York, May 22-23.

Chemical Specialties Manufacturers Association, mid-year meeting, Drake hotel, Chicago, May 20-22.

Del-Mar-Va Peninsula Fertilizer Association annual convention, Ocean City, Md., June 30.

Division of Rubber Chemistry of the American Chemical Society, spring meeting, Cleveland hotel, Cleveland, Ohio, May 16-18.

Drug, Chemical and Allied Trades Section of the New York Board of Trade, annual outing, Pocono Manor Inn, Pocono Manor, Pa., September 27-29.

Federal Wholesale Druggists Association, annual convention, Greenbrier hotel, White Sulphur Springs, W. Va., September 16-19.

Federation of Paint and Varnish Production Clubs, annual meeting, Cincinnati, Ohio, October 21-24.

International Organization for Standardization, council meeting, Geneva, Switzerland, July 16-21.

Manufacturing Chemists' Association, annual meeting, Greenbrier hotel, White Sulphur Springs, W. Va., June 7-9

National Association of Purchasing Agents, annual convention, Public Auditorium, Cleveland, Ohio, May 20-23.

National Cottonseed Products Association, annual convention, Statler Hilton hotel, Dallas, Tex., May 21-22.

National Paint, Varnish & Lacquer Association, seminars, eastern zone, Biltmore hotel, New York, May 15; New England zone, Parker House, Boston, May 13; annual convention, Statler, Ambassador and Biltmore hotels, Los Angeles, November 12-14.

National Plant Food Institute, Greenbrier hotel, White Sulphur Springs, W. Va., June 10-13.

National Plastics Exposition, sponsored by Society of Plastics Industry, New Coliseum, New York, June 11-15.

Perkin Centennial, sponsored by American Association of Textile Chemists and Colorists, Waldorf-Astoria hotel, New York, week of September 10.

Salesmen's Association of the American Chemical Industry, sales clinic, Commodore hotel, New York, October 15.

Synthetic Organic Chemical Manufacturers Association, monthly luncheon meeting, annual outing, Skytop Lodge, Skytop, Pa., May 16-18; annual meeting and dinner, Biltmore hotel, New York, December 3.

Toilet Goods Association, annual meeting, Waldorf-Astoria hotel New York, May 15-17.

Naugatuck Will Quadruple Lab At Canadian Pilot Plant Location

An extension to the laboratory facilities at the Elmira, Ont., plant of Naugatuck Chemicals Division of Dominion Rubber Company, Ltd., Montreal, which will quadruple available laboratory space has been projected, and construction will soon begin. Purpose of the expansion, according to M. F. Anderson, Naugatuck's general manager, is to make possible a more rapid expansion into new products. Dominion Rubber is a wholly owned subsidiary of United States Rubber Company, New York.

SEIDLITZ UNIT HEAD: C. N. Seidlitz, jr., made president of Seidlitz Paints of Texas, Inc., a newly-formed subsidiary of Seidlitz Paint & Varnish Company.

Naugatuck's laboratories are now divided almost equally between the development and control departments. The new building will more than double control department space, while the area devoted to the increasing needs of the development department will be increased fivefold.

Naugatuck Formed in Canada in 1941

Naugatuck was formed in Canada in 1941. Early products included aniline oil, diphenylamine, a complete range of rubber chemicals, and agricultural chemicals, including 2,4-D weed-killer and 2,4,5-T brush-killer.

"Our pace in introducing new plastics, agricultural chemicals, and basic organic intermediates will be considerably accelerated when the new laboratories are available," Mr. Anderson stated.

Features of the new laboratory will include an emulsion polymerization section

—*Continued on page 45*

Esso Will Market Third Gasoline Grade

Esso Standard Oil Company, New York, has announced it will soon switch from the petroleum industry's traditional system of marketing only two grades of gasoline and will introduce a new three-grade gasoline marketing system.

Stanley C. Hope, president of Esso Standard, said the company's research shows a two-grade system no longer is the best marketing answer to problems posed by the fast-widening range in power requirements of automobile engines.

Esso Standard will change to a three-

—*Continued on page 45*

DCAT Names Members For Nominating Committee

Appointment of Lloyd I. Volckening, of Ivers-Lee Company, as chairman of the nominating committee of the Drug, Chemical and Allied Trades Section of the New York Board of Trade, has been announced.

Other members appointed were Stanley I. Clark, Sterling Drug, Inc.; James Day, Dow Chemical Company; Charles M. Macauley, Charles M. Macauley & Associates, and Charles P. Walker, jr., van Ameringen-Haebler, Inc.

Strong, Cobb Tells Changes

Herbert A. Strate, vice-president of Strong, Cobb & Co., Cleveland, Ohio, has been appointed director of sales. Mr. Strate, a vice-president of Strong, Cobb since 1937, will make his headquarters at Cleveland. Also announced was the resignation of George E. Burke, vice-president and secretary of the company.

Drug Progress Exploration By Cross-Section of Industry Due Wednesday at Rutgers

An open forum and panel discussion, moderated by Dr. George F. Archambault of Public Health Service, among leading members of the medical, educational, manufacturing, wholesaling and advertising professions, will top off the fifth Annual Rutgers Pharmaceutical Conference, to be held this Wednesday at Rutgers University, New Brunswick, N. J. Purpose of the forum, as well as the conference in general, will be to explore professional and economic developments affecting pharmacy and the public health and welfare.

H. M. Poole, jr., vice-president in charge of general line sales, of Johnson & Johnson, will be chairman of the morning session. Speeches and speakers during the morning will be:—

Pharmacist and Trade Relations

"What the Pharmacist Thinks of Trade Relations," by Louis Stritzler, vice-president of National Association of Retail Druggists.

"The Forward Look in the Pharmaceutical Industry," by Henry S. McNeil, president and director of McNeil Laboratories, Inc.

"It's Our Future," by Dr. Austin Smith, editor of the *Journal* of the American Medical Association.

"Your Public Relations Is Showing," by Thomas D. Yutzy, of Dudley-Anderson-Yutzy.

"A Doctor Looks at Our Food and Drug Laws," by Dr. Chester S. Keefer, professor of medicine, Boston University and physician in chief, Massachusetts Memorial Hospitals.

D. R. Zimmerman, sales promotion manager of the special products department of E. R. Squibb & Sons, a division of Olin Mathieson Chemical Corporation, will act as general chairman at luncheon.

"What's Ahead for Your Business" will be subject of a talk by Leo Cherne, executive director of Research Institute of America, Inc.

The afternoon session will feature the forum, at which panelists will be Messers Poole, Stritzler, McNeil, Smith, Yutzy, and Dr. Keefer.

Dr. Archambault, the moderator, is pharmacist director, chief, pharmacy branch, division of hospitals, United States Public Health Service.

A summation following the panel discussion will be given by Mr. Zimmerman, who is chairman of the conference.

USP AID: Dr. Robert W. Elkas, named assistant to the Director of Revision of United States Pharmacopeia, to help relieve work load at New York headquarters.

Trimethylolpropane Made In Quantity by Celanese

Commercial production of pure-grade flake trimethylolpropane has been announced by the chemical division of Celanese Corporation of America, New York.

A new lower price, 43 cents per pound in carload quantities, Celanese reports, now enables economic use of this aldol product in a number of basic processing areas.

Velsicol Int'l Appoints

James A. Winter has been appointed director of sales for the recently-formed Velsicol International Corporation, a subsidiary of Velsicol Chemical Corporation, Chicago.

Nat'l Aluminate Forms German Unit

National Aluminate Company, Chicago, has organized a German subsidiary, Deutsche Nalco-Chemie G.m.b.H. for the production of chemicals developed by National Aluminate in the United States for treatment of boiler water for railroads and other industries.

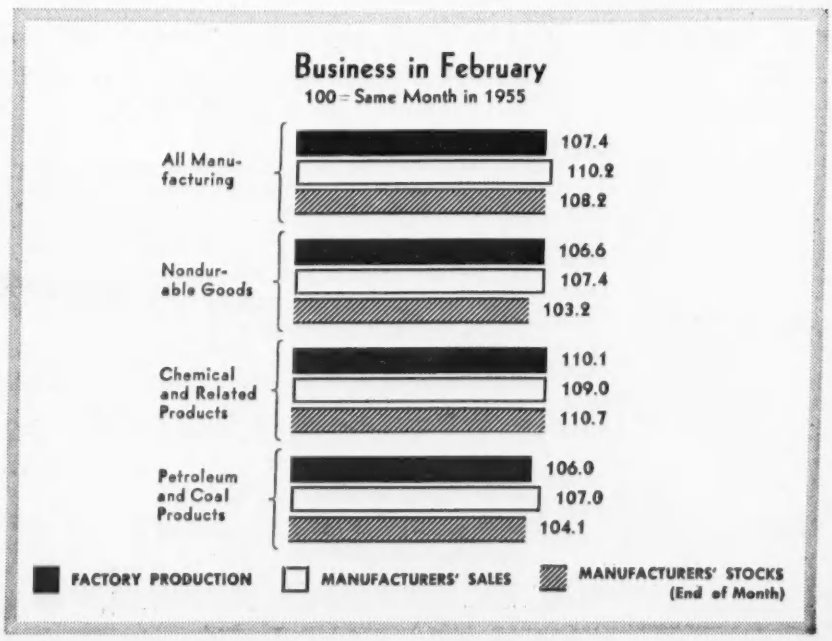
National Aluminate has obtained guaranties from the US Government insuring an investment in the Federal Republic of Germany against loss in case of expropriation and also insuring the convertibility of receipts from the investment into dollars.

Besides contributing $50,000 in cash for the capital stock of the German firm, National Aluminate also invested in Deutsche

—*Continued on page 45*

Lilly Picks Subsidiary V.P.

Joseph E. Marmon, of Eli Lilly & Co., Indianapolis, Ind., has been named vice-president and member of the board of directors of Corn States Laboratories, Inc., Omaha, Nebr., Lilly's new subsidiary. Mr. Marmon assumed his new duties May 1, after formal transfer of ownership of all the shares of Corn States stock was made to Lilly.



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CHEMICALS AND RELATED MATERIALS

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Current MARKET Quotations

Unless otherwise indicated, listings are first-hand quotations prevailing, according to information and belief, May 4 on large lots, f.o.b. New York, with the lowest in the left-hand column and the highest in the right-hand column. The listings do not represent bid and asked prices nor a range over the week. Differences between high and low may be accounted for by differences in quantity, quality, locality, or individual suppliers' views. An index to the weekly market reports is to be found on page 4.

A

Acacia (see Gum arabic).
Acenaphthene, below 92.3 C., m.p., dms., works lb. .40 - —
above 92.3 C., m.p., bbls., dms., lb. .41 - .50
Acetaldehyde, 99%, dms., c.l., dlvd. lb. .12 - —
l.c.l., dlvd. lb. .13½-
tanks, dlvd. lb. .10 - —
Acetaldol (see Aldol).
Acetanilide, tech., flaked, bbls., bgs., c.l., frt. alld. lb. .29 - —
ton lots lb. .30 - —
smaller lots lb. .33 - —
USP, bbls., 2,000-lb. lots lb. .80 - —
smaller lots lb. .81 - .88
Acetic anhydride, dms., c.l., dlvd. E. lb. .15½-
l.c.l., dlvd. E lb. .17 - —
tanks, dlvd. E lb. .14 - —
Acetoacetanilide, fib. dms., c.l., dlvd. lb. .80 - —
l.c.l., dlvd lb. .81 - —
Acetoacet-o-chloroanilide, fib. dms., c.l., dlvd lb. 1.35 - —
l.c.l., dlvd lb. 1.36 - —
Acetoacet-o-toluidide, fib. dms., c.l., dlvd. lb. .82 - —
l.c.l., dlvd lb. .83 - —
Acetone, CP, dms., c.l., dlvd lb. .10½-
l.c.l., dlvd lb. .11½-
tanks, dlvd lb. .08 - —
Methyl (see M).
Acetonitrile, dms., c.l., works lb. .45 - —
l.c.l., works lb. .47 - —
Acetophenetidin, USP, bbls., works, frt. equald lb. 1.17 - 1.19
Acetophenole, cns., dms. lb. 1.21 - 1.85
tech., dms., l.c.l., works lb. .75 - —
N-Acetyl-p-aminophenol, dms., frt. adjusted lb. 1.75 - 1.85
Acetyltributyl citrate, tech., non-ret. dms., c.l., frt. alld. E. of Denver lb. .36 - —
l.c.l., frt. alld. E. of Denver lb. .35 - —
tanks, frt. alld. E. of Denver, lb. .33 - —
Acetyltriethyl citrate, tech., non-ret. dms., c.l., frt. alld, E. of Denver lb. .39 - —
l.c.l., frt. alld E. of Denver, lb. .40 - —
tanks, frt. alld. E. of Denver, lb. .37 - —
Acetyltri-2-ethylhexyl citrate, non-ret. dms., frt. alld lb. .60 - —
Acid, abietic, coml., dms., c.l., works lb. .12 - —
l.c.l., ex whse lb. .1490-
cryst., dms., c.l. works lb. .06½-
l.c.l., works lb. .07 - .07½
Acetic, coml., or redist., 28%, bbls 100 lbs. 4.80 - —
56%, bbls 100 lbs 8.25 - —
70%, bbls 100 lbs. 9.95 - —
80% bbls 100 lbs. 10.45 - —
glacial, syn., CP, dms., dlvd. 100 lbs. 15.00 -16.00
tech., dms., c.l., dlvd 100 lbs. 12.00 - —
l.c.l., dlvd 100 lbs. 13.00 - —
tanks, dlvd 100 lbs. 10.00 - —
USP chys., inclusive, dlvd. 100 lbs. 24.00 -25.00
Acetic anhydride (see Acetic anhydride above).
Acetylsalicylic, USP, special, makers, primary distrib., bbls., 1,000-lb lots, point of shipt lb. .61 - —
standard, fine, cryst., gran., (30-40 mesh) powd., (60 mesh) bbls., 1,000-lb. lots, lb. .56 - .58
Freight equald, shipt. identical quantity over standard routes, from N. Y., Phila., Midland, Mich. Chicago and St. Louis.
Adipic, bgs., c.l., dlvd lb. .32 - —
l.c.l., dlvd lb. .34¾-
Aminoacetic, NF, bbls., frt. adjusted lb. 1.50 - 1.75
p-Aminobenzoic, tech., dry, dms., works lb. 1.74 - 1.77
USP, dms., 1,000-lb. lots or more, works lb. 2.30 - —
smaller lots, works lb. 2.55 - 2.60
p-Aminosalicylic, dms., 1,000-lb. lots or more, frt. adjusted lb. 4.25 - —
smaller lots, same basis lb. 4.30 - 4.75
Anthranilic, 99%, 150-lb. dms., dlvd. lb. 1.10 - —
Arsenous, tech. (see Arsenic, white), USP (see Arsenic trioxide).
Ascorbic USP, dms., 25-100 kilo lots kilo. 12.00 - —
10-kilo lots kilo. 12.35 - —
5-kilo lots kilo. 12.75 - —
bots, 1-kilo lots kilo. 13.00 - —
500-gram lots kilo. 13.50 - —
Battery, chys., c.l., works, E. 100 lbs. 2.35 - —
l.c.l., works, E 100 lbs. 2.65 - 3.45

Acacia—Acid, L

Acid, benzoic, tech., bbls., dms., 100-lb. lots or more lb. .44 - —
USP, bbls., dms., 100-lb. lots or more lb. .54 - —
Betahydroxynaphthoic (see Acid, b-Oxynaphthoic).
Betaoxynaphthoic (see Acid b-Oxynaphthoic).
Boric, tech., 99.9%, cryst., bgs., c.l., works ton. 126.75 - —
ton lots, ex whse, N. Y. or Chi ton. 116.50 - —
smaller lots, same basis. ton. 181.50 - —
dms., c.l., works ton. 151.25 -172.25
ton lots, ex whse. N. Y. or Chi ton. 201.00 -222.00
smaller lots, same basis. ton. 206.00 -227.00
gran., bgs., c.l., works ton. 101.75 - —
ton lots, ex whse. N. Y. or Chi ton. 151.50 - —
smaller lots, same basis. ton. 156.50 - —
dms., c.l., works ton. 126.25 -147.25
ton lots, ex whse. N. Y. or Chi ton. 176.00 -197.00
smaller lots, same basis. ton. 181.00 -202.00
bulk, c.l., works ton. 95.75 - —

Acid, boric, tech., 99.9%, powd., bgs., c.l., works ton. 106.75 - —
ton lots, ex whse, N. Y. or Chi ton. 156.50 - —
smaller lots, same basis. ton. 161.50 - —
dms., c.l., works ton. 131.25 -152.25
ton lots, ex whse., N. Y. or Chi ton. 181.00 -202.00
smaller lots, same basis. ton. 186.00 -207.00
Boric acid in kegs $45.50 per ton higher than in paper bgs. USP boric Acid $25 per ton higher.
Broenners, bbls lb. 1.76 - —
Butyric, 99%, dms., c.l., works lb. .34 - —
l.c.l., works lb. .34½-
tanks, works lb. .32½-
Capric, dms lb. .24 - .26
Caprylic, dms. lb. .24 - .26
Cassella, dms., frt. alld., 100% basis lb. 1.44 1.75
Castor oil, split, dms lb 35½ .36
Chicago, paste, bbls., frt. alld lb. 3.21 - —
Chloroacetic, mono- purif., flake, 99%, dms lb. .23½- .25½
tech., flake, 96-97%, dms., frt. equald lb. .20 - .21
o-Chlorobenzoic, fib. dms., t.l., works lb. 1.10 - —
smaller lots, works lb. 1.25 - —

Acid, p-chlorobenzoic, fib. dms., 2,000 lbs. or more, works lb. 2.25 - —
less than 2,000 lbs., same basis. lb. 2.30 - —
Chlorosulfonic, dms., c.l., frt. equald lb. .0465- —
l.c.l., frt. equald lb. .0515- —
tanks, frt. equald lb. .0415- —
Acid, chlorosulfonic, in stainless steel dms. ½c. per lb. higher.
Chromic, 99¾%, dms., c.l., works, frt. equald lb. .28½- —
l.c.l., dlvd., N. Y. metropolitan area lb. .29 - .30
NF (see Chromium trioxide).
Cinnamic, refd., bots lb. 2.50 - 3.50
Citric, USP, anhyd., gran., fine gran., bgs., dms., c.l. lb. .29½- .30
10,000-lb. lots, 1 shipt. lb. .30 - .30½
smaller lots lb. .30½- .31
hydrous, gran., fine gran., bgs., dms., c.l lb. .27½- .28
10,000-lb lots, 1 shipt. lb. .28 - .28½
smaller lots lb. .29 - .29½
Powdered citric acid ½c. higher.
Cleve's, mixed, bbls lb. 79 - —
Coconut oil, dist., dms lb. .25 - .27
tanks lb. .23 - —
dbl. dist., dms lb. .25 - .27
tanks lb. .23 - .24
Corn oil, dist., dms lb. .16¾- .18¾
tanks lb. .14¾- —
Cottonseed oil, dist., dms lb. .15¾- .17¾
tanks lb. .13¾- —
2,3-Cresotic, dms., ton lots, works. lb. .70 - —
less than ton lots, works lb. .72 - —
Cresylic, coaltar, dom., 50%, 207° C. or above, resin and tricresyl phosphate grade, tanks, frt. equald gal. 1.10 - —
50% 210° C. or above, total range over 9° C., non-resin grade, dms., c.l., same basis gal. 1.13 - —
l.c.l., same basis gal. 1.19 - —
tanks, same basis gal. 1.00 - —
50% 204° to 207° C., tricresyl phosphate and resin grade, tanks, same basis. gal. 1.20 - —
imp., 75% at 215°C., or over, dms., ex whse gal. .93 - —
petroleum, dom., 195° to 214°C., non-ret. dms., 65 to c.l., works, San Francisco and Los Angeles gal. .80 - —
l.c.l., same basis gal. .82 - .84
tanks, same basis gal. .65 - —
200° C. to 222° C., tanks, Wilmington, Cal lb. .63 - .72
211° C. to 237° C., non-ret. dms., c.l., San Francisco and Los Angeles gal. .76 - —
l.c.l., same basis gal. .78 - .80
tanks, same basis gal. .61 - —
220° C. to 242° C., tanks, Wilmington, Cal lb. .62 - .67
245° C. to 295° C., tanks, Wilmington, Cal gal. .50 - —
Crotonic, fib. dms., 200 lbs. or more, contained, works lb. .50 - —
Cyanoacetic, tech., bbls. lb. .90 - 1.25
Dichlorophenoxyacetic (see 2,4-D).
Diethylbarbituric (see Barbital).
Diglycolic, bgs., works lb. .14 - —
Dithiodibenzoic, dms., 1,000-lb. lots, works lb. 1.45 - —
2-ethyl hexoic, dms., c.l., dlvd lb. .36½- —
l.c.l., dlvd. lb. .37½- —
tanks, dlvd lb. .34½- —
F, crude, paste, bbls., works lb. 2.10 - —
Folic, bots, fib. cns kilo-lots or more gram. 1.40 - —
Formic, 85%, cbys., c.l., works lb. .1570- —
l.c.l., works lb. .1620- .1720
90%, cbys., c.l., works lb. .1625- —
l.c.l., works lb. .1675- .1775
Fumaric, tech., bgs., dms., c.l., frt. alld. E lb. .25½- —
l.c.l., same basis lb. .26½- —
Gallic, NF VII, bbls., 1,000-lb. lots lb. 1.80 - —
smaller lots lb. 1.82 - 2.00
tech., bbls., 1,000-lb. lots lb. 1.58 - —
smaller lots lb. 1.82 - 2.00
Gamma, dry, grd., bbls., frt. alld. lb. 1.50 - —
paste, bbls., frt. alld lb 1.45 - —
Gentisic, 100-lb. fib. dms lb 8.50 - —
Gluconic, tech., 50% bots lb. .25 - .35
chys. lb. .19 - —
dms. lb. 15½- —
l-Glutamic, 99½% fib dms., 100-lb. lots, works lb. 2.00 - —
25-lb. lots, works lb. 2.05 - —
Glycolic (see Acid hydroxyacetic).
H, dry, bbls., c.l., works, 100% basis lb. 1.00 - —
l.c.l., same basis lb. 1.02 - —
Hydriodic, 1.50 s.g., cbys lb. 2.94 - —
1.70 s.g., cbys lb. 3.23 - —
Hydrobromic, medicinal, 48%, cbys., dlvd. E lb. .37 - .43
Hydrochloric, anhyd. (see Hydrogen chloride).
18° cbys., c.l., works 100 lbs. 2.50 - —
l.c.l., dlvd., Metropolitan area 100 lbs. 2.90 - 3.03
tanks, works, frt. equald ton. 28.00 - —
20° cbys., c.l., works 100 lbs. 2.73 - —
l.c.l., dlvd., Metropolitan area 100 lbs. 3.13 - —
tanks, works, frt. equald ton. 30.00 - —
22°, cbys., c.l., works 100 lbs. 3.23 - —
l.c.l., dlvd., Metropolitan area 100 lbs. 3.63 - —
tanks, works, frt. equald ton. 35.00 - —
CP, USP, consumers, cbys., extra, c.l., works lb. .11¾- —
l.c.l., same basis lb. .13¼- .13¾
5-pint bots., extra, cs., c.l., same basis lb. .16¾- —
l.c.l., same basis lb. .18¼- .19¼
Acid, hyrdochloric, CP, USP, prices to dealers 1½c. per lb. less.
Hydrocyanic, cyls., frt. alld lb. .75 - .93
dilute, NF, 2½, 5-lb. bots lb. .40 - —
Hydrofluoric, anhyd. (see Hydrogen fluoride), aqueous, tanks, works lb. .21 - —
70%, steel, dms., works lb. .18½- .22½
Hydrofluosilicic, dms., works, 30% basis lb. .06 - —
Hydroxyacetic, tech., 70%, non-ret. bbls., Phila., 100% basis lb. .136 - —
tanks, Belle, W. Va., 100% basic lb. .093 - —
Hypophosphorus, purif., 50%, cbys lb. 1.30 - 1.32
USP, cbys. lb. .88 - —
Isonicotinic, 100-lb. fib. dms., works lb. 5.00 - —
Hydrazide (see Isoniazid).
Itaconic, tech., fib. dms., c.l., works lb. .43 - —
l.c.l., works lb. .44 - —
purif., fib. dms., c.l., works lb. .53 - —
l.c.l., works lb. .54 - —
J, paste bbls., works, 100% basis. lb. 2.45 - —
powd., bbls., same basis lb. 2.50 - 2.85
Koch, bbls., frt. alld., 100% basis. lb. 1.00 - —
L, bbls., works lb. 1.25 - —

Abbreviations

Used in OPD Market Quotations

alld.	allowed	distr.	distributor	NNR	New and Nonofficial Remedies
amorph.	amorphous	djns.	demijohns		
AMP	American melting point	dlvd.	delivered	No.	number
anhyd.	anhydrous	dms.	drums	nom.	nominal
a.p.a.	available phosphoric acid	dom.	domestic	o-	ortho
		E.	east	ord.	ordinary
approx.	approximately	e.p.	end point	oz.	ounce
artif.	artificial	equald.	equalized	p-	para
		exp.	expressed	Pac.	Pacific
ASTM	American Society for Testing Materials	F.	fahrenheit	pf.	proof
		ferment.	fermentation	phos.	phosphate
		f.f.a.	free fatty acid	photo.	photographic
Atl.	Atlantic	f.f.c.	free from chlorine	pkgs.	packages
Be.	Baume	fib.	fiber	powd.	powdered
bbls.	barrels	f.o.b.	free on board	precip.	precipitated
bgs.	bags	f.p.a.	free of prussic acid	prod.	producer
bls.	bales			pt.	point
bots.	bottles	frt.	freight	pulv.	pulverized
b.p.	boiling point	gal.	gallon	purif.	purified
b.p.l.	bone phosphate of lime	gran.	granular	redist.	redistilled
		grd.	ground	refd.	refined
b.r.	boiling range	i.&a.	iron and aluminum	refy.	refinery
bxs.	boxes			reg.	regular
C.	centigrade	i.b.p.	initial boiling point	resub.	resublimed
cbys.	carboys			ret.	returnable
CD	completely denatured	imp.	imported	SD	specially denatured
c.i.f.	cost, insurance, freight	incl.	included	s.d.	single distilled
		indust.	industrial	S. E.	southeast
cks.	casks	kgs.	kegs	sec.	secondary
c.l.	carlots	l-	laevo	secs.	seconds
cns.	cans	lacq.	lacquer	s.g.	specific gravity
coml.	commercial	lb.	pound	ship't	shipment
conc.	concentrated	l.c.l.	less than carlots	soln.	solution
CP	chemically pure	l.t.l.	less truckload	s.u.	standard unit
		liq.	liquid	syn.	synthetic
cps.	centipoises	mfrs.	manufacturers	tanks.	railroad tankcars
cryst.	crystal	m-	meta	tech.	technical
cs.	cases	m.a.p.	mixed aniline point	tert-	tertiary
ctns.	cartons			t.l.	truck loads
cyls.	cylinders	min.	minimum	t.w.	tank wagons
d-	dextro	m.p.	melting point	USP	U. S. Pharmacopoeia
dbl.	double	N-	nitrogen	vis.	viscosity
denat.	denatured	n-	normal	VM&P	varnish makers & painters
dest-dist.	destructive-distilled	nat.	natural		
		neut.	neutral	W.	west
dl-	dextro-laevo	NF	National Formulary	whse.	warehouse
dist.	distilled			w. w.	water-white

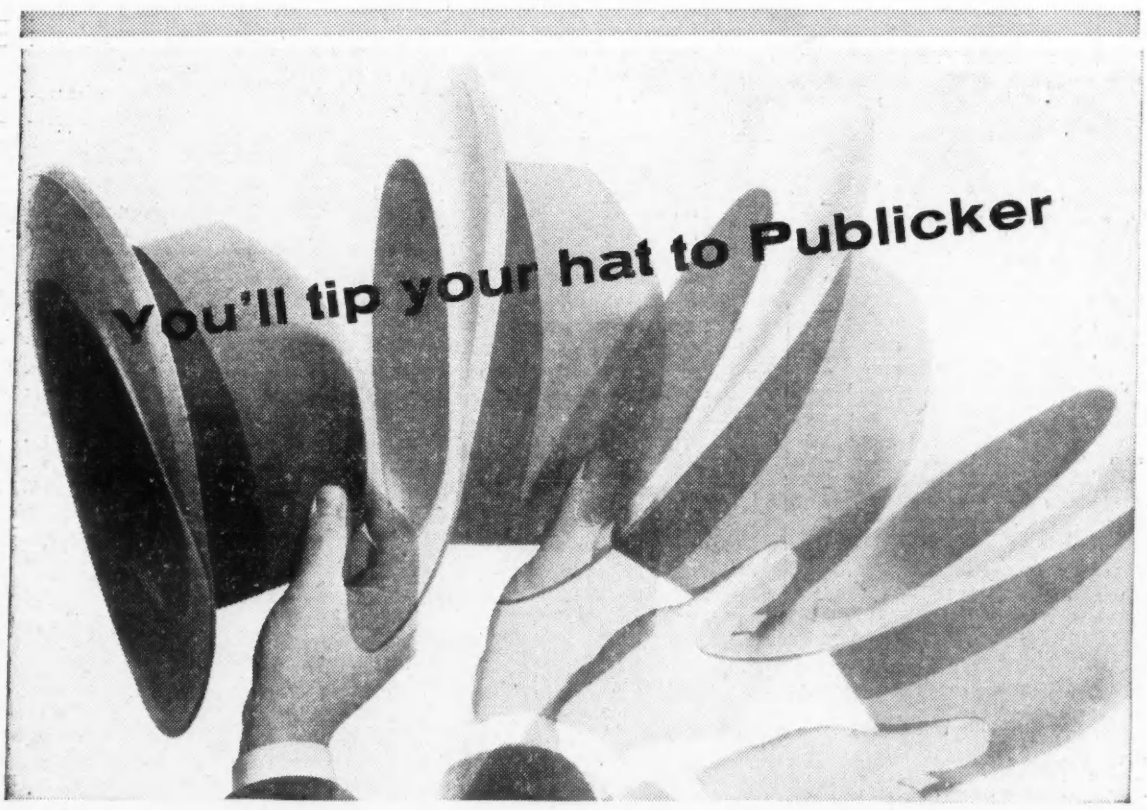
A unit-ton is 2,000 pounds of 1 percent of the basic constituent or other standard of the material. The percentage figure of the basic constituent multiplied by the price figure shown gives the price of 2,000 pounds of the material.

Acid, lactic, edible, 50%, bbls., 20 or more lb. .1754- .215
smaller lots lb. .1854- .225
80%, bbls., 5 or more lb. .3054- .37
smaller lots lb. .3104- .375
plastic grade, 50%, bbls., 20 or more, works lb. .23 - —
1 to 19 lb. .235 - —
80%, bbls., 5 or more lb. .385 - —
tech., 22%, bbls., c.l., works 100 lbs. 6.30 - —
l.c.l., works 100 lbs. 6.70 - —
cbys., l.c.l., works 100 lbs. 12.20 - —
44%, bbls., c.l., works 100 lbs. 11.45 -11.95
l.c.l., works 100 lbs. 11.85 -12.35
USP, 85%, cbys. lb. .85 - .88
Laurent's, bbls lb. .60 - —
Lauric, 90%, dms lb. .25½- .37½
Linseed oil, dist., dms lb. .2180- —
w.w., dms. lb. .2480- —
Maleic, cryst., powd., dms lb. .37 - .38
Malic, tech., dms lb. .50 - —
Mandelic, NF, dms., 1,000-lb. lots lb. 2.35 - —
smaller lots lb. 2.40 - 2.50
Metanilic, dms., works lb. .57 - .75
Methacrylic, glacial, 98%, dms., truckloads, works lb. .54½- —
smaller lots, works lb. .55 - —
Molybdic, 85%, dms., works lb. 1.15 - —
Monochloroacetic, purif. (see Acid, Chloroacetic mono-).
Muriatic (see Acid, hydrochloric).
Myristic, dms lb. .25 - .27

Acid, 1-Naphthol-4-sulfonic (see Acid, Neville and Winthers).
1-Naphthol-5-sulfonic (see Acid, L).
1-Naphthol-5-sulfonic, 8-amino (see Acid, S).
1-Naphthol-3,6-disulfonic, 8-amino (see Acid, H).
2-Naphthol-6,8-disulfonic (see Acid, Gamma).
5-Naphthol-7-sulfonic, 2-amino (see Acid, J).
Naphtholsulfonic, mixed (see Acid, Cleve's).
1-Naphthylamine-5-sulfonic (see Acid, Laurent's).
2-Naphthylamine-4,8-disulfonic (see Acid, Casella).
2-Naphthylamine-6-sulfonic (see Acid, Broenner's).
2-Naphthylamine-7-sulfonic (see Acid, F).
2-Naphthylamine-1-sulfonic (see Acid, Tobias).
Nevile and Winther's, dms., frt. alld lb. 1.20 - —
Nicotinic, USP, dms., dlvd kilo 8.00 - 8.30
Amide, USP (see Nicotinamide).
Nitric, 36° Be, cbys., c.l., works, E 100 lbs. 5.75 - —
l.c.l., works, E 100 lbs. 6.05 - 6.85
38° Be, cbys., c.l., works, E 100 lbs. 6.25 - —
l.c.l., works, E 100 lbs. 6.55 - 7.35
40° Be, cbys., c.l., works, E 100 lbs. 6.75 - —
l.c.l., works, E 100 lbs. 7.05 - 7.85
42° Be, cbys., c.l., works, E 100 lbs. 7.25 - —
l.c.l., works, E 100 lbs. 7.55 - 8.35
58.5 to 68% HNO_3, tanks, works, 100% basis 100 lbs. 3.90 - —
94½ to 95½% HNO_3, tanks, works, 100% basis 100 lbs. 4.90 - —

Acid, nitric, CP, NF, consumer, cbys., extra, c.l., works lb. .13½- —
l.c.l., same basis lb. .11¼- .11¾
5-pt. bots, extra, cs., c.l., same basis lb. .17½- —
l.c.l., same basis lb. .14¾- .20¾
p-Nitrobenzoic, dms., c.l., works, lb. .72 - —
l.c.l., works lb. .73 - —
Oleic, s.d., dms lb. .18½- .20½
tanks lb. .16½- —
dbl. dist. (white), dms. lb. .20½- .22½
tanks lb. .18½- —
Oleum (see Acid, sulfuric, fuming).
Orthochlorobenzoic (see Acid, o-Chlorobenzoic).
Orthocresotinic (see Acid, 2,3-Creosotic).
Oxalic, bbls., c.l., works lb. .16½- —
10,000-lb. lots, works lb. .16¾- —
smaller lots, works lb. .17¾- —
b-Oxynaphthoic, fib. dms., 250 lbs. or more, frt. alld lb. 1.14 - 1.17
Palm, dist., dms lb. .14¾- .16¾
tanks lb. .12¾- —
Para-aminobenzoic (see Acid, p-Aminobenzoic).
Para-aminosalicylic (see Acid, p-Aminosalicylic).
Parachlorobenzoic (see Acid, p-Chlorobenzoic).
Paramethylphenylcinchonic (see Neocinchophen).
Paranitrobenzoic (see Acid p-Nitrobenzoic)
Paratoluidinmetasulfonic (see Acid, p-Toluidine m-sulfonic)
Phenylacetic, pure, cryst., cns. lb. .75 - 1.70
Phenylcinchoninic (see Cinchophen).
Phenylglycolic (see mandelic).
Phosphoric, food grade, 75%, cbys., c.l., frt. alld. E 100 lbs. 6.75 - —
l.c.l., works 100 lbs. 7.00 - 8.00
tanks, works 100 lbs. 5.35 - —
80%, cbys., c.l., frt. alld, 100 lbs. 7.60 - —
l.c.l., works 100 lbs. 7.85 - 9.10
NF, 85%, cbys., c.l., works lb. .0825- —
l.c.l., works lb. .0850- .0975
tanks, works lb. .0640- —

Acid, picric, NF, bbls lb. .60 - —
tech., bbls lb. .34 - .35
Propionic, syn., pure, dms., c.l., frt. alld lb. .22¾- —
l.c.l., frt. alld lb. .23¾- —
tanks, frt. alld lb. .20¾- —
Pyrogallic, NF, (see Pyrogallol).
tech., bbls lb. 2.76 - 2.99
Ricinoleic (see Acid, castor oil, split).
S., bbls., works lb. 3.25 - —
Salicylic, crude, fib. dms., c.l., frt. alld lb. .35 - —
l.c.l., frt. alld. on 100 lbs. or more lb. .36 - —
sublimed, tech., fib. dms., c.l., dlvd lb. .37 - —
l.c.l., dlvd lb. .41 - —
USP, cryst., fib. dms lb. .48 - —
powd., fib. dms lb. .55 - —
Sebacic, purif., dms., c.l., works lb. .59 - —
l.c.l., works lb. .61 - .65
Soybean oil, dbl. dist., dms lb. .18¾- .20¾
tanks lb. .16¼- —
s.d., dms lb. .17¼- .19¼
tanks lb. .15¼- —
Stearic, dbl. pressed, bgs lb. .15¼- .17¼
single pressed, bgs lb. .14¾- .16¾
triple pressed, bgs lb. .17½- .19½
Succinic, purif., cryst., bbls., works lb. .62 - .75
Sulfanilic, tech., dms., c.l., frt. alld lb. .19 - —
l.c.l., frt. alld lb. .21 - —
Sulfuric, 60° Be, cbys., c.l., works 100 lbs. 2.00 - —
l.c.l., works 100 lbs. 2.45 - —
tanks, works ton 18.60 - —
66° Be, cbys., c.l., works, 100 lbs. 2.25 - —
l.c.l., works 100 lbs. 2.55 - 3.35
tanks, works ton 22.35 - —
98%, tanks, works ton 23.50 - —
99-100%, tanks, works ton 23.95 - —
CP, NF, consumers, cbys., extra, c.l., works, frt. equald lb. .09¾- —
l.c.l., same basis lb. .11¼- .11¾
5-pt. bots., extra cs., c.l., works, frt. alld lb. .13¼- —
l.c.l., same basis lb. .14¾- .20¾
fuming (oleum), 20%, tanks, works ton 25.00 - —
40%, tanks, works ton 29.00 - —
65%, tanks, works ton 39.50 - —
Tall, dms., c.l., works lb. .09 - .09½
tanks, works lb. .07½- .08
Tallow, dist., dms lb. .15¼- .17¼
tanks lb. .13¼- —
hydrogenated, dms lb. .14¼- .16¼
Tannic, NF, fluffy, bbls., 1,000-lb. lots lb. 2.05 - —
smaller lots lb. 2.06 - 2.10
powd., bbls., 1,000-lb. lots lb. 1.95 - —
smaller lots lb. 1.96 - 2.01
tech., dms lb. 1.05 - —
Tartaric, USP, dom., 230 or 250-lb. dms., c.l. lb. .47 - —
10,000-lb. lots, 1 shipt lb. .47½- —
smaller lots lb. .48 - —
100-lb. dms. lb. .49 - —
imported lb. .39½- .40
Thioglycolic, refd., cbys., 100% basis lb. 1.35 - 1.55
Thiosalicylic, purif., dms., 1,000-lb. lots, works lb. 4.00 - —
Tobias, bbls., frt. alld lb. .81 - —
Toluenesulfonic, dms., c.l., works, lb. .16 - —
l.c.l., works lb. .17½- —
p-Toluene sulfonic, monohydrate, dms., c.l., or t.l lb. .90 - —
125 lbs. to t.l. lb. 1.00 - —
p-Toluidine-m-sulfonic, bbls., works lb. .92 - 1.04
Trichloroacetic, bots. lb. 2.00 - 2.50
Trichlorophenoxyacetic (see 2,4,5-T).
Tungstic, tech., kgs., works lb. 4.25 - —
Undecylenic, dms lb. 1.40 - —
Aconite root, bls lb. .50 - .55
Acrolein, tech., dms., c.l., works lb. .47 - —
l.c.l., works lb. .47½- —
tanks, works lb. .46 - —
Acrylonitrile, dms., c.l., t.l., works, lb. .30 - —
l.c.l., l.t.l., works lb. .31 - —
tanks, works lb. .27 - —
ACTH, cryst., bulk, 1,000 units/gram. bots gram 15.00 - —
Adeps lanae (see Lanolin).
Adrenocorticotropic hormone (see ACTH).
Agar, USP, Kobe No. 1, strip, bls. lb. 3.00 - 3.25
powdered, 30 mesh, fib., dms lb. 3.40 - 3.50
dl-Alanine, dms., works lb 8.50 -11.00
Albumin, blood, dark (see Blood, dried, soluble).
light, dms. lb. .65 - .90
Egg, edible, cryst., powd., bbls. lb. 2.09 - 2.11
flake lb. 2.04 - 2.06
tech., cryst., bbls lb. .90 - .92
Alcohol, allyl, dms., c.l. dlvd lb. .32 - —
l.c.l., dlvd lb. .33 - —
tanks, dlvd lb. .30 - —
Amyl, ex fusel oil (see Fusel oil, refd.)
ferment., refd., 128°-132° C., dms., l.c.l., dlvd lb. .43 - —
ACS grade, dms., l.c.l., dlvd lb. .45 - —
ex-pentane, mixed, amyls, dms., c.l., frt. alld lb. .18 - —
l.c.l., frt. alld lb. .19 - —
tanks, frt. alld lb. .15½- —
primary, dms., c.l., frt. alld, lb. .19¼- —
l.c.l., frt. alld lb. .20¼- —
tanks, frt. alld lb. .17¼- —
sec-synthetic, dms., c.l., works, frt. alld lb. .18½- —
l.c.l., works lb. .19½- —
tanks, works lb. .16½- —
tert-synthetic, dms., c.l., frt. alld, E lb. .18 - —
l.c.l., frt. alld E lb. .19 - —
tanks, frt. alld E lb. .15½- —
1-pentanol, (syn. normal), dms., c.l., works lb. .41½- —
l.c.l., works lb. .42½- —
tanks, works lb. .39½- —
2-pentanol, dms., c.l., works lb. .65 - —
l.c.l., works lb. .70 - —
tanks, works lb. .60 - —
Benzyl, NF, dms lb. .64 - .79
tech., dms., dlvd lb. .47½- .49
n-Butyl, ferment., dms., c.l., frt. alld lb. .16 - —
l.c.l., frt. alld lb. .17 - —
tanks, frt. alld lb. .13½- —
synthetic, dms., c.l., dlvd lb. .16 - —
l.c.l., dlvd lb. .17 - —
tanks, dlvd lb. .13½- —
sec-synthetic, dms., c.l., dlvd, lb. .13½- —
l.c.l., dlvd lb. .14½- —
tanks, dlvd lb. .11½- —
tert-synthetic, dms., c.l., frt. alld, lb. .14 - —
l.c.l., frt. alld lb. .15 - —
tanks, frt. alld lb. .12 - —
Capryl, 95%, dms., c.l., works lb. .21½- —
l.c.l., works lb. .22½- .23¼
tanks, works lb .19½- —
Cetyl, extra, fib. cns., 500-lb. lots or more lb. .65 - .72
NF, fib. cns., 140-lb. lots or more lb. .68 - —
Cinnamic, bots lb. 2.15 - 2.75
Decyl mixed isomers, dms., c.l., dlvd lb. .23½- —
l.c.l., dlvd lb. .24½- —
tanks, dlvd lb. .21 - —
normal (see 1-Decanol).



One of the World's Major Producers of

★ *Ethyl Alcohol*
★ *Butyl Alcohol*
★ *Butyl Acetate*
★ *Acetaldehyde*
★ *Butadiene*
★ *Ethyl Acetate*
★ *Amyl Acetate*
★ *Acetone*
★ *Acetic Acid*
★ *Refined Fusel Oil*

FOR UNIFORM QUALITY—
FOR STEADY SUPPLY—
FOR PROMPT DELIVERY

PUBLICKER INDUSTRIES Inc.
1429 WALNUT STREET, PHILADELPHIA 2, PA.
NEW YORK • NEW ENGLAND • MIDWESTERN DISTRIBUTORS, PUBLICKER ALCOHOL & CHEMICAL SALES CORP.
PHILADELPHIA—LOCUST 4-1400 • NEW YORK—OXFORD 5-4160 • BOSTON—HOMESTEAD 9-0022
CHICAGO—RANDOLPH 6-6678 • CLEVELAND—CHERRY 1-6140

Alcohol, denat., CD12, CD13, CD14, CD17, dms., c.l., dlvd. E. of Rockies	gal.	.59½	—
l.c.l., same basis	gal.	.64½	.70½
tanks, dlvd., same basis	gal.	.43½	—

Tankcar sales require written authorization by Alcohol and Tobacco Tax Div.

Proprietary solvent, dms., c.l., dlvd. E. of Rockies	gal.	.62	—
l.c.l., same basis	gal.	.66	.72
tanks, same basis	gal.	.45	—

Tankcar sales require written authorization by Alcohol and Tobacco Tax Div.

SD1, dms., c.l., dlvd. E. of Rockies	gal.	.60½	—
l.c.l., same basis	gal.	.65½	.71½
tanks, same basis	gal.	.44½	—
SD2B, dms., c.l., dlvd. E. of Rockies	gal.	.59	—
l.c.l., same basis	gal.	.64	.70
tanks, same basis	gal.	.43	—
SD3A, dms., c.l., dlvd. E. of Rockies	gal.	.58	—
l.c.l., same basis	gal.	.63	.71
tanks, same basis	gal.	.42	—
SD23A, dms., c.l., dlvd. E. of Rockies	gal.	.60½	—
l.c.l., same basis	gal.	.65½	.71½
tanks, same basis	gal.	.44½	—
SD23H, dms., c.l., dlvd. E. of Rockies	gal.	.61	—
l.c.l., same basis	gal.	.66	.72
tanks, same basis	gal.	.45	—
SD29, dms., c.l., dlvd. E. of Rockies	gal.	.59½	—
l.c.l., same basis	gal.	.64½	.70½
tanks, same basis	gal.	.43½	—
SD30, dms., c.l., dlvd. E. of Rockies	gal.	.58	—
l.c.l., same basis	gal.	.63	.69
tanks, same basis	gal.	.42	—
SD35A, dms., c.l., dlvd. E. of Rockies	gal.	.61	—
l.c.l., same basis	gal.	.66	.72
tanks, same basis	gal.	.45	—
SD40, dms., c.l., dlvd. E. of Rockies	gal.	.59	—
l.c.l., same basis	gal.	.64	.70
tanks, same basis	gal.	.43	—

West coast dlvd. prices are the same as eastern prices, except in Idaho, Montana, Oregon and Washington, where a 5c. differential on tankcars is maintained.

Diacetone, acetone-free, dms., c.l., dlvd	lb.	.14½	—
l.c.l., dlvd	lb.	.15½	—
tanks, dlvd	lb.	.12	—
tech., dms., c.l., dlvd	lb.	.14	—
l.c.l., dlvd	lb.	.15	—
tanks, dlvd	lb.	.11½	—
Ethyl, 190 pf., USP, tax paid, dms., c.l., dlvd. E. of Rockies	gal.	20.53	—
l.c.l., same basis	gal.	20.58	-20.64
tanks, same basis	gal.	20.37	—
tax free, dms., c.l., dlvd. E. of Rockies	gal.	.58	—
l.c.l., same basis	gal.	.63	.69
tanks, same basis	gal.	.42	—
Absolute, 200 pf. tax paid, dms., dlvd. E. of Rockies	gal.	21.63	—
l.c.l., same basis	gal.	21.68	-21.74
tanks, same basis	gal.	21.47	—
2-Ethylbutyl, dms., c.l., works	lb.	.29½	—
l.c.l. works	lb.	.30	—
tanks, works	lb.	.28	—
2-Ethylhexyl, dms., c.l., dlvd. E.	lb.	.23¾	—
l.c.l., same basis	lb.	.24¾	—
tanks, same basis	lb.	.21¾	—
Furfuryl, cns., works	lb.	.29	—
dms., c.l., Cedar Rapids, Ia	lb.	.21	—
Newark, N. J.	lb.	.21½	—
l.c.l. Cedar Rapids, Ia.	lb.	.22	—
Newark, N. J	lb.	.22½	—
tanks, Memphis, Tenn	lb.	.184	—
Hydroabietyl, tech., solid, Zone 1, dms., c.l., dlvd	lb.	.27	—
l.c.l., dlvd	lb.	.27½	—
tanks, dlvd	lb.	.25	—
Isoamyl, dms., c.l., works, frt. alld. E	lb.	.28	—
l.c.l., same basis	lb.	.29	—
tanks, same basis	lb.	.25	—
Isobutyl, dms., c.l., dlvd	lb.	.15	—
l.c.l., dlvd	lb.	.16	—
tanks, dlvd	lb.	.12½	—
Iso-octyl, dms., c.l., dlvd. E	lb.	.23½	—
l.c.l., dlvd E	lb.	.24½	—
tanks, dlvd E	lb.	.21	—
Isopropyl, refd., 91%, dms., c.l., dlvd	gal.	.53	—
l.c.l., dlvd	gal.	.60	—
tanks, dlvd	gal.	.37	—
95%, c.l., dlvd	gal.	.55	—
l.c.l., dlvd	gal.	.62	—
tanks, dlvd	gal.	.39	—
99%, dms., c.l., dlvd	gal.	.57	—
l.c.l., dlvd.	gal.	.64	—
tanks, dlvd	gal.	.41	—
Lauryl, bots	lb.	2.00	- 2.50
Methyl (see Methanol).			
Methylamyl (see Methyl isobutyl carbinol).			
Octyl, perfumer's grade, bots	lb.	1.75	- 3.25
tech. (see Octanol, normal).			
2-Phenylethyl, extra, dms	lb.	1.14	- 1.45
standard, dms	lb.	1.18	- 1.48
n-Propyl, dms., c.l., dlvd	lb.	.13	—
l.c.l., dlvd	lb.	.14	—
tanks, dlvd	lb.	.10½	—
Tetrahydrofurfuryl, dms., c.l. or t.l., f.o.b. Memphis, Tenn	lb.	.37	—
l.c.l. or l.t.l., dms., f.o.b. Memphis, Tenn	lb.	.38	—
f.o.b. Newark, N. J	lb.	.40	—
tanks, dlvd. E. of Denver	lb.	.365	—
dlvd. W. of Denver	lb.	.375	—
Tridecyl, mixed isomers, dms., dlvd	lb.	.26½	—
l.c.l., dlvd	lb.	.27½	—
tanks, dlvd	lb.	.24	—
Wood (see Methanol).			
Aldol, 95%, dms., works	lb.	.23	—
denaturing grade, dms	gal.	2.13	—
Aldrin, tech., fib, dms., c.l., t.l., dlvd	lb.	.80	—
l.c.l., dlvd	lb.	.85	—
Aletris root, bgs	lb.	1.75	- 1.85
Algin (see Sodium alginate).			
Alizarine (see 1,2-dihydroxy anthraquinone).			
Allethrin, 90%, dms., frt. alld	lb.	28.80	-28.90
soln., 20%, dms., 200-2,000 lb. lots, frt. alld	lb.	6.50	- 6.55
2½%, dms., frt. alld	lb.	.95	- 1.00
Allspice (see Pimento).			
Allyl bromide, cbys., works	lb.	1.35	- 1.40
Chloride, dms., c.l., dlvd	lb.	.17	—
l.c.l., dlvd	lb.	.18	—
tanks, dlvd	lb.	.15	—
Aloe, Cape, cs	lb.	.45	- .48
powd., cs	lb.	.50	—
Curacao, kgs	lb.	.50	- .55
Aloin, USP, bbls., dms., kgs	lb.	3.73	- 3.82
Alphanaphthol (see a-Naphthol).			
Alphanaphthylamine (see a-Naphthylamine).			
Alphanitronaphthalene(see a-Nitronaphthalene).			
Alphapicoline (see a-Picoline).			
Alphaterpineol (see a-Terpineol).			
Alphatocopherol (see a-Tocopherol).			
Alum, ammonium, gran., bgs., works. 100 lbs		4.30	—
lump, dms., works	100 lbs.	5.05	—
powd. dms., works	100 lbs.	5.20	—
USP, burnt, dms	lb.	.20	- .21
hydrous, dms.	lb.	.07¾	.08
Alum, potassium, gran., bgs., works. 100 lbs.		4.53	—
lump, dms., works	100 lbs.	5.30	—
powd., dms., works	100 lbs.	5.45	—
USP, burnt, dms	lb.	.20	- .21
hydrous, dms	lb.	.07¾	.08
Potash-chrome, dms	lb.	.17	—
Sodium, dms., c.l., works	100 lbs.	4.60	—
l.c.l., works	100 lbs.	5.00	—
Alumina, calcined, bgs., c.l., works.	lb.	.0425	—
l.c.l., works	lb.	.045	- .0725
Aluminum acetate, basic soln., 24%, bbls., l.c.l., works	lb.	.14	—
Chloride, coml., anhyd., dms., c.l., works, frt. equald	lb.	.15½	—
l.c.l., works, frt. equald.	lb.	.16	—
cryst., dms., c.l., works	lb.	.1450	—
l.c.l., works	lb.	.1500	—
soln., 32°, cbys., c.l., works	lb.	.0445	—
l.c.l., works	lb.	.0520	.1295
tanks, works	100 lbs.	3.45	—
NF, gran., dms., works	lb.	.29	.30
Fluoride, tech., anhyd., bgs., c.l., works	lb.	.15¾	—
l.c.l., works	lb.	.16¾	.18¾
Aluminum fluoride in fib. dms. 0.35c. per lb. higher.			
Formate, basic soln., dms., c.l., works	lb.	.12	—
l.c.l., works	lb.	.12½	—
Hydrate, heavy, bgs., c.l., frt. equald	lb.	.0295	—
20,000-40,000 lb. lots, same basis	lb.	.032	—
2,000-20,000 lb. lots, same basis	lb.	.042	—
bulk, same basis	lb.	.027	—
light, bgs., dlvd	lb.	.18	—
Aluminum hydroxide, gel., pharmaceutical, 14-15% Al_2O_3, fib. dms., works	lb.	.22	—
contract, works	lb.	.21	—
9-9½% Al_2O_3, fib. dms., works	lb.	.19	—
contract, works	lb.	.18	—
dried, USP, XIV, fib. dms., works	lb.	.82½	—
contract, works	lb.	.79½	—
tech., powder (see Aluminum hydrate).			
Metal, 99%+, ingots, 10,000-lb. lots, frt. alld	lb.	.2590	—
pigs, 10,000-lb. lots, frt. alld.	lb.	.2400	—
Oxide, amorphous (see Alumina, calcined).			
Paste, lining, extra-fine, dms	lb.	.66½	—
standard grade, dms	lb.	.46½	—
Powder, lining, extra, fine, dms.	lb.	1.07	—
standard grade, dms	lb.	.76½	—

Aluminum powder and paste prices are f.o.b shipping point. Add 1c. per lb. for 100-lb. dm., 1½c. per lb. for 50-lb. dm., 3c. per lb. for 10-lb. can and 5c. to 12c. per lb. for smaller containers. Deduct 1c. per lb. for single shipment of 400 to 1,499 lbs., 2c. for 1,500 to 4,999 lbs., 3c. for 5,000 to 29,999 lbs. and 4c. for 30,000 lbs. or more. Where destination is within the continental U. S. a deduction equivalent to the lowest available common carrier transportation rate will be made from seller's invoice on orders of 200 lbs. or over.

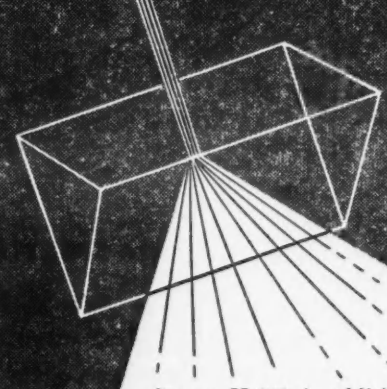
Aluminum resinate, precip., 2.1% Al, dms., frt. alld	lb.	.30½	—
Stearate, dibasic, ctns., c.l	lb.	.37	—
l.c.l.	lb.	.38	.42
monobasic, ctns., c.l	lb.	.37	—
l.c.l.	lb.	.38	.42
tribasic, ctns., c.l	lb.	.37	—
l.c.l.	lb.	.38	.42
Sulfate, coml., bulk, c.l., works.	100 lbs	1.85	—
grd., bgs., c.l., works	ton	37.00	—
lump, bgs., c.l., works	ton	40.00	—
iron-free, bgs., c.l., works, frt. equald	100 lbs	3.55	—
l.c.l., works, frt. equald.	100 lbs	3.93	—
Prices $1 per ton higher in the south			
USP, gran., dms., works	lb.	.16	.18
powd., dms., works	lb.	.36	.37
Trihydrate, heavy (see Aluminum hydrate, heavy).			
Ambergris, gray, bots	oz.	8.00	-10.00
Aminoazotoluene base, bbls., 100% basis	lb.	1.03	- 1.18
Aminoethyl ethanolamine, dms., c.l., dlvd	lb.	.46½	—
l.c.l., dlvd	lb.	.43	—
tanks, dlvd	lb.	.45	—
2-Amino-2-methyl-1-propanol, dms., c.l., frt. alld	lb.	.44	—
l.c.l., frt. alld	lb.	.45	—
tanks, frt. alld	lb.	.42	—
m-Aminophenol, dist., dms., ton lots.	lb.	2.05	—
smaller lots	lb.	2.50	—
p-Aminophenol, dms., frt. alld	lb.	1.15	—

Investigate

CONOCO H-300

the extender of profit

SECONDARY PLASTICIZER



demonstrates exceptional light stability when used with polyvinyl chloride formulations

Conoco H-300, in addition to possessing a number of other outstanding properties, is unique in its stability to discoloration caused by exposure to light. Fadometer tests prove that films containing H-300 show light stability *equal to or better than* those with no extenders. Just how economical it is may be seen from the fact that Conoco H-300 can be used to the extent of 25% of the total plasticizer required.

Conoco H-300 is available in either tank cars or drums.

Some of the other outstanding advantages of CONOCO H-300

- **Lower initial and aged viscosities in plastisols or organosols**
- **Improved mixing of formulations**
- **Greater low-temperature flexibility**
- **Saves as much as 2 cents a pound on the finished product**

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CONTINENTAL OIL COMPANY

Aminophylline—Barium Sulfide

Aminophylline, USP, 100-lb dms lb 3.55 - —
Ammonia anhyd., fertilizer, tanks, works, frt. equald ton 85.00 - —
refrigeration, tanks works, frt equald ton.87.50 - —
aqueous (29.4% NH_3), dms., c.l., dlvd Metropolitan area 100 lbs 3.60 - —
l.c.l., works 100 lbs 4.00 - —
tanks works, anhyd. basis ton 88.00 —
Ammoniacal liquor (see Ammonia, aqueous).
Ammoniac, sal, gray, bgs., c.l., works, frt equald 100 lbs 8.25 —
l.c.l., same basis 100 lbs 8.65 11.15
white gran. (see Ammonium chloride tech.).
Ammonium acetate, purif., dms lb. .38 - —
Benzoate USP dms., kgs. 4,000-lb. lots frt. alld lb. .80 - —
smaller lots frt. alld lb. .81 1.00
Biborate gran. dms. c.l., works ton.319.50 - —
ton lots, ex whse ton.395.00 - —
smaller lots, ex whse ton.400.00 - —
Bicarbonate dom. dms., c.l., works 100 lbs 6.50 - —
l.c.l., works 100 lbs 8.00 - —
imp. dms. l.c.l. lb .07¼- .08½
Bichromate, dms., works lb. .42 - .43
Bifluoride, dms., dlvd lb. .2145- .2245
Bromide, NF, gran., bbls lb. .40 - —
Powdered ammonium bromide 10c per lb. higher.
Carbonate, USP, lump, dms lb. .16 - —
Chloride, tech., white, gran., fines, bgs., c.l., works 100 lbs 5.25 - —
l.c.l., works 100 lbs 7.00 - —
USP, gran., bbls., dms lb. .17¼ - —
Citrate, dibasic, bbls lb. .77 - —
Dichromate (see Ammonium bichromate).
Fluoride (see Ammonium bifluoride).
Hydroxide (see Ammonia aqueous).
Hypophosphite, NF, dms lb 3.07 - —
Iodide, NF, dms., bots lb. 4.26 - 4.38
Linoleate, 80%, dms., works lb. .50 - .55
Nitrate dom. fertilizer grade, 33.5% N., bgs., western works frt. equald ton.68.00 - —
with dolomite, 20.5% N bgs., Hopewell, Va ton.51.00 - —
imp. Canadian, 33.5% N, eastern bgs., c.l., ship't point, frt equald to $8 per ton. ton.70.00 - —
western, bgs., c.l., f.o.b. cars, Los Angeles ton.79.76 - —
Oxalate fine gran., dms lb. .26½- .31
Pentaborate, gran., bgs., c.l., works ton.187.50 - —
ton lots, ex whse ton.271.50 - —
smaller lots, ex whse ton.276.50 - —
Ammonium pentaborate powder $10 per ton higher.
Persulfate, kgs lb. .38 - .47½
Phosphate, coml., bgs., c.l., works, frt. equald lb. .09 - —
l.c.l., same basis lb. .0935- —
dibasic, NF, V bbls., dms. lb. .46 - —
tech., bgs., c.l., works, frt. equald lb. .09 - —
l.c.l., same basis lb. .0935- —
Salicylate, NF, dms. kgs lb. 1.62 1.64
Silicofluoride, dms., works lb. .11¾- .13¼
Sulfamate, bgs., c.l. t.l., works, lb. .18 - —
l.c.l., works lb. .22 - —
Sulfate coke-oven bulk producing ovens, base price ton 42.00 45.00
syn., bulk, c.l., works ton 42.00 46.00
purif., dms., works lb. .09 .09½
Sulfide, liq., 40-44%, tanks, frt. equald., 100% basis ton.160.00 —
Sulfocyanide, tech. (see Ammonium thiocyanate).
Thiocyanate, tech., dms., c.l., works lb. .20 —
l.c.l. works lb. .22 .26
Thioglycollate, coml., cbys., 100% basis lb. 1.35 1.55
highly purif. cbys. 100% basis. lb 1.70 1.96
Thiosulfate cryst., photo grade, fib. dms., frt. alld lb. .65 - —
60% soln dms. c.l. works lb. 06½- —
d Amphetamine hydrochloride dibasic, bots lb.28.00 - —
dl, dms lb. 6.00 - —
d-monobasic, bots lb.28.00 - —
d-Phosphate, dibasic bots lb.28.00 - —
dl, dms lb 6.00 - —
d-Sulfate, dms lb.28.00 - —
dl, dms lb 6.00 - —
Amyl acetate ex fusel oil, tech., dms., c.l., frt. alld. E. of Rockies lb. .18 - —
l.c.l., same basis lb. .19 - —
tanks, same basis lb. 15½- —
syn., oxo process, dms., c.l., dlvd lb. .19¼- —
l.c.l., dlvd lb. .20¼- —
tanks, dlvd lb. .17¼- —
ex pentane, reg., dms., c.l., dlvd lb. .18 - —
l.c.l., dlvd lb. .19 - —
tanks, dlvd lb. .15½- —
tech., dms., c.l., dlvd lb. .16 - —
l.c.l., dlvd lb. .17 - —
tanks, dlvd lb. .13½- —
Alcohol (see Alcohol, amyl).
n-Butyrate, dms lb. .90 1.25
Cinnamic, aldehyde, dms lb. 1.75 2.20
Nitrite, USP, bots lb. 1.75 1.83
Salicylate, cns., dms lb. .74 1.05
o-tert-Amyl phenol, dms., c.l., works, lb. .48 - —
l.c.l. works lb. .49 - —
tanks, works lb. .46 - —
p-tert-Amyl phenol, dms, c.l. works lb. .25¾- —
l.c.l. works lb. .26¾- —
tanks works lb. .24¾- —
Anethole, NF, cns., dms lb 1.85 —
tech., dms lb. 1.10 1.15
Angelica root, dom. bls lb 60 70
Aniline oil, dms., c.l., frt. alld lb. .21 - —
l.c.l., frt. alld lb. .22 - —
tanks, frt. alld lb. .20 - —
tankwagons, min. 2,000 gals. lb. .20½- —
Salt, dms, c.l. truckloads, 20,000 lbs., min., frt. alld lb. .31 - —
l.c.l. same basis lb. .33 —
Anise seed, Mexican, bgs lb. No prices.
Spanish, bgs. lb. .30 - —
Anisic aldehyde, bots., dms lb. 1.80 2.70
o-Anisidine, dms., c.l., frt. alld lb. .87 - —
l.c.l., same basis lb. .88 - —
tanks, same basis lb. .86 - —
p-Anisidine, dms., works lb. .97 - —
Annatto seed, whole, bgs lb. .15 - .17
Anthracene 90-95% bbls., ton-lots, works lb. .83 - —
smaller lots, works lb 95 - —
Anthraquinone 99.5% bbls. c.l., frt. alld lb. .83 - —
l.c.l., same basis lb. .88 - —
electrical grade bbls. l.c.l., same basis lb .91 - —
Antimony butter (see Antimony trichloride).
Metal, bulk, c.l., mines lb. .33 - —
cs., c.l., mines lb. .33½- —
Antimony oxide, bgs., c.l., frt. alld. lb. .27 - —
l.c.l., frt. alld lb. .28½- —
Sulfide, approx. 65%, bgs., dlvd lb. .23 - .26

Antimony trichloride, anhyd., solid, pails, c.l., works lb. .41 - —
l.c.l., works lb .43 —
Antimony-potassium tartrate, tech., powd., dms lb. .65½- .70½
USP, powd., dms lb. .70½- .71½
Antipyrine, NF, 200-lb bbls lb. 3.50 —
Apomorphine hydrochloride, USP, 5 oz. lots, bots oz.35.60 - —
Areca nuts, powd., bbls lb. .15 - .16
Arecoline hydrobromide, NF, bots., tins oz. 4.50 6.00
l-Arginine monohydrochloride, dms. 1 kilo lots kilo.74.80 - —
Arnica flowers (true montana), bls. lb. No prices.
Arsenic metal, lump, bbls, ex whse, lb. .54 - —
Trioxide, USP, dms lb. .48 - —
White, powd., bbls., c.l., dlvd lb. .05½- —
l.c.l., dlvd lb. .06½- .07½
Asafetida, es lb. .36 .39
powd., bbls., dms lb. .50 .63
Asbestine (see Talc, tinrous, N. Y.)
Asbestos, Canadian, crude, No. 1, c.l. (20 tons), mines ton.1,430.00 —
No. 2, c.l. (20 tons), mines ton.742.50 - —
Run-of-mine, c.l. (20 tons) mines ton.611.60 - —
3K, c.l. (20 tons), mines ton.479.60 - —
3R, c.l., (20 tons), mines ton.408.10 - —
3T, c.l. (20 tons), mines ton.382.80 - —
3Z, c.l. (20 tons), mines ton.353.10 - —
4K, c.l. (20 tons), mines ton.190.30 - —
4M, c.l. (20 tons), mines ton.190.30 - —
Asbestos, Canadian, crude, 4T, c.l. (20 tons), mines ton.171.60 - —
4Z, c.l. (20 tons), mines ton.171.60 - —
5D, c.l. (20 tons), mines ton.134.75 - —
5K, c.l. (20 tons), mines ton.134.75 - —
5M, c.l. (20 tons), mines ton.122.35 - —
5R, c.l. (20 tons), mines ton.115.50 - —
6D, c.l. (30 tons), mines ton.81.90 - —
7D, c.l. (30 tons), mines ton.71.92 - —
7F, c.l. (30 tons), mines ton.68.25 - —
7H, c.l. (30 tons), mines ton.57.75 - —
7K, c.l. (30 tons), mines ton.48.30 - —
7M, c.l. (30 tons), mines ton.42.00 - —
7R, c.l. (30 tons), mines ton.40.95 - —
7RF, c.l. (30 tons), mines ton.42.00 - —
7T, c.l. (30 tons), mines ton.38.85 - —
7TF, c.l. (30 tons), mines ton.42.00 - —
8S, c.l. (30 tons), mines ton28.35 - —
Asbestos c.l. prices are in U. S. funds, l.c.l. lots $4 per ton higher.
Asphalt, gilsonite, black jet, bgs., c.l., mines ton.37.00 - —
select, 350° F. fusing pt., bgs., c.l., mines ton.38.00 - —
270°-295°F., fusing pt., bgs., c.l., mines ton.37.00 - —
seconds, 300°-390°F. fusing pt., bgs., c.l., mines ton.32.00 - —
Manjak, No. 10, crude, dms., works lb. .06¼- —
Petroleum, cut-back, tanks, tankwagon, refy. gal. .09 - —
emulsion, tanks, tankwagon, refy. gal. .09½- —
steam-refd., 50-80 penetration, tanks, tankwagon, refy. ton.21.00 - —
85-300 penetration, tanks, tankwagon, refy ton.20.00 - —
Aspirin, (see Acid acetylsalicylic).
Atropine, USP, bots oz. 3.90 - —
Sulfate, USP, bots oz. 2.45 - 2.65

B

Bacitracin, bulk, 1,000,000,000 or more units 50,000 units. .70 - —
less than 1,000,000,000 units. 50,000 units. .75 - —
Balm of Gilead buds, dried, bgs lb. 1.35 - 1.45
Barberry root bark, bgs lb. .28 - .30
Barbital, USP, 100-lb. dms lb. 4.50 - —
Sodium, USP, dms lb. 4.75 - 4.77
Barium carbonate, precip., bgs., c.l., works ton.100.00 - —
smaller lots, works ton.110.00 - —
Chlorate, kgs., works lb. .32 - .36
Chloride anhyd., bgs., c.l., works, ton.165.00 - —
l.c.l., works ton.175.00 - —
NF, cryst., dms lb. .20 - —
tech., cryst., dms., c.l., works, 100 lbs. 6.50 - —
l.c.l., works 100 lbs. 7.00 - —
Chromate, bgs., frt. equald lb. .35 - —
Dioxide (see Barium peroxide).
Hydrate, cryst., bgs., c.l., t.l., frt. equald ton.200.00 - —
l.c.l., l.t.l., frt. equald ton.210.00 - —
Monoxide (see Oxide).
Nitrate, bbls., c.l., t.l., dlvd lb. .16 - —
l.c.l., l.t.l., dlvd lb. .17 - —
Oxide, grd., dms., c.l., t.l., frt. equald ton.275.00 - —
l.c.l., l.t.l., frt. equald ton.285.00 - —
Peroxide, dms., frt. equald lb. .20 - —
Stearate, ctns., c.l., frt. alld lb. .39 - —
l.c.l., same basis lb. .40 .44
Sulfate, tech. (see Barytes and blanc fixe).
X-ray, dms lb. .15 - .15½
Sulfide, dms., c.l., works ton.85.00 - —
l.c.l., works ton.95.00 - —

TAKE A NEW LOOK AT

BROMINE

PROPERTIES:

Molecular weight.....159.83
Atomic weight.....79.916
Specific gravity at 20/15°C.....3.120
Pounds a gallon at 20°C.....26.0
Boiling point.....58.8°C.
Freezing point.....—7.2°C.
Freely soluble in alcohol, ether, carbon tetrachloride, chloroform, concentrated HCl, aqueous solutions of inorganic bromides.

SPECIFICATIONS:

Bromine, not less than 99.7%
Specific gravity at 20/15°C., not less than.....3.1
Chlorine, not more than 0.15%
Iodine .....None
Non-volatile, less than 0.01%
Water Content .....0.003% Maximum

A NEW BROMINE PLANT* at El Dorado, Arkansas, will provide a large, dependable source of high-quality bromine at lower delivered cost in volume. This added capacity to our present production from plants at Saint Louis and Manistee, Mich. permits active research on this basic chemical element to take advantage of bromine's unusual and unique properties and characteristics. Investigate the possibilities of bromine and bromides in your business.

MC ©

*A joint-venture project of Michigan Chemical Corporation and Murphy Corporation of El Dorado, Arkansas.

C-56-3

Barytes, Southern, off-color, bgs., mines ton 25.00 - —
95-75%, bgs., mines ton 25.00 - —
water-grd., paper bgs., c.l., E. St. Louis ton 45.00 - —
ex-whse, N. Y. ton 65.10 - —
Bauxite, bulk, mines ton 6.75 - 10.00
Bay leaves (see Laurel leaves).
Belladonna leaf, bls lb. .35 - .37
root, bls lb. .45 - .50
Bentonite, dom., 200 mesh, bgs., c.l., mines ton 14.00 - —
imp. Italian, white, high gel., bgs., 5-ton lots, ex whse ton 80.60 - —
1 ton-lots, ex whse ton 83.10 - —
low gel., bgs., 5-ton lots, ex whse ton 78.95 - —
1-ton lots, ex whse ton 81.45 - —
Benzal chloride, cbys., works lb. .44 - —
Benzaldehyde, NF, dms lb. .74 - 1.05
tech., cbys., t.l., dms lb. .43 - —
smaller lots lb. .44 - —
Benzene (See Benzol).
Hexachloride, 25% and 99% gamma isomer (see Lindane)
tech., high gamma, dms., c.l., dlvd., gamma unit-lb. .0075 —
t.c.l., works, gamma unit-lb. .009 —
low gamma, dms., c.l., dlvd., gamma unit-lb. .007 —
t.c.l., works, gamma unit-lb. .0085 —
Benzidine hydrochloride, bbls., c.l., frt. alld., 100% basis lb. 1.03 - —
t.c.l., same basis lb. 1.05 - —
Sulfate, tech., frt. alld, 100% basis lb. 1.05 - —
Benzocaine, dms. lb 3.48 - 3.50

Benzol, coaltar, pure or nitration, tanks, works:—
Bethlehem, Pa. gal. .38 - —
Birmingham district gal. .36 - —
Chicago district gal. .36 - —
Cleveland district gal. .36 - —
Geneva, Utah gal. .36 - —
Johnstown, Pa. gal. .36 - —
Lackawanna, N. Y. gal. .36 - —
Lone Star, Texas gal. .36 - —
Lorain, Ohio gal. .36 - —
Middletown, Ohio gal. .36 - —
Minnequa, Colo gal. .36 - —
Philadelphia district gal. .36 - —
Pittsburgh district gal. .36 - —
Sparrows Point, Md. gal. .36 - —
Syracuse, N. Y. gal. .36 - —
Terre Haute, Ind. gal. .36 - —
Youngstown, Ohio gal. .36 - —
Benzophenone, dms. lb. 1.40 - 1.70
Benzotriazole, tech., dms., 1,000-lb. lots, works lb. 2.25 - —
Benzotrichloride, cbys., 1,000-lb. lots or more, frt. equald lb. .18 - —
smaller lots, frt. equald lb. .20 - —
Benzoyl chloride, cbys., dms., c.l., works frt equald lb. .22 - —
t.c.l., same basis lb. .23 - —
tank trucks, dlvd. Metropolitan area lb. .21 - —
Peroxide, purif., fib dms., 50 to 1,000-lb. lots, works lb. .93 - 1.08
Benzyl acetate, f.f.c. cns. dms lb .62 - 1.04
Alcohol (see Alcohol, benzyl).
Benzoate USP f.f.c. cns. dms lb .62 - 1.10
Chloride tech., 13-gal. cbys., dms. c.l., works, frt. equald. lb. .23 - —
t.c.l. same basis lb. .24 - —
tank trucks, dlvd. Metropolitan area lb. .21 - —
A 2½c differential is quoted on benzyl chloride in 5-gal. cbys. In steel dms. prices were ½c. lower.

Benzyl cinnamate, cns lb. 3.60 - 3.90
Dimethylamine, 55-gal. dms., lots, works lb. 2.25 - —
Formate cns. lb 1.30 - 2.10
Isoeugenol, cns. lb 8.60 - 9.10
Propionate, bots. lb 1.35 - 1.65
Salicylate, bots lb. 1.50 - 1.85
Benzylidine acetone, bots lb. 1.68 - 1.80
Chloride (see Benzal chloride).
Berberine bisulfate, cns lb. 35.00 - 36.25
Hydrochloride, bots. lb. 35.00 - 36.25
Betagammapicoline (see b,g-Picoline).
Betamethylnaphthalene (see b-Methylnaphthalene).
Betanaphthol (see b-Naphthol).
Betanaphthylamine (see b-Naphthylamine).
Betaphenylethylamine (see b-Phenylethylamine).
BHC (see Benzene hexachloride technical)
Biotin cryst., bots gram 10.00 - —
Biphenyl (see Diphenyl).
Bismuth chloride, f.ars lb. 5.11 - —
Hydroxide dms lb 4.65 - —
Metal, bxs. ton lots lb 2.25 - —
Nitrate cryst., dms lb 2.10 - 2.17
Oxide, anhyd., dms lb 4.47 - 5.05
Oxychloride, dms lb 4.37 - 4.42
Phenolsulfonate, fib dms lb 5.22 - —
Subcarbonate, USP, dms lb. 3.20 - —
Subgallate, NF, fib. dms lb 3.15 - —
Subiodide, fib. dms lb. 5.37 - —
Subnitrate, NF, dms lb 2.65 - —
Subsalicylate, USP dms lb 3.50 - —

Bismuth ammonium citrate, USP, oowd jars lb 4.22 - —
Black, acetylene, imp bgs., c.l., duty and freight extra lb. .17 - —
cs., t.c.l., ex whse lb. .22½ - 26
Ash (see Barium sulfide)
Bone, dms., t.c.l., frt. alld lb. 17 - 23¾
Pacific coast bone black prices 2c. per lb. higher.
Carbon, channel, pigment, high color, beads, ctns., c.l., works, lb. .72 - —
t.c.l. dlvd or whse lb .79 - —
medium color uncompressed bgs c.l. works, lb. .12 - —
t.c.l. dlvd or whse, lb. .19 - —
rubber beads bulk, c.l., works lb. .07 - —
bgs, c.l. works lb .074 - —
t.c.l. works lb .1225 - —
furnace fast extruding, bgs., c.l. works lb .06 - —
ctns, t.c.l. whse lb .10 - —
high abrasion, bulk, c.l., works, lb .0750 - —
bgs, c.l. works lb .0780 - —
t.c.l., dlvd or whse lb. .122 - 125
high modulus bgs, c.l., works, lb .0550 - —
ctns, t.c.l. whse lb .0950 - —
semi reinforcing bgs, c.l., works lb .045 - —
bgs ctns t.c.l. whse lb .065 - —
Charcoal (see C).
Dyes (see Dyes).
Graphite (see G).
Iron oxide, pure, bgs., c.l., works, lb. .13¼ - —
t.c.l., works lb. .13½ - —
Lamp, bgs., c.l., works lb. .16 - .45
Mineral, bgs., works lb. .0160 - .0575
Blackberry root bark, bls lb. .45 - —
Black haw root bark, bls lb. .63 - .65
tree bark, bl lb. .40 - .45
Blanc fixe, dry, by-product, bgs., c.l., works ton 190.00 - —
t.c.l., works ton 200.00 - —
direct process, bgs., c.l., works, ton 110.00 - —
t.c.l., works ton 120.00 - —
N. Y. whse ton 155.00 - —
Blood, dried, 16-16½% ammonia, bbls unit-ton 4.75 - —
high-grade, unground, 16-17% ammonia, bgs., Chicago, unit-ton 5.25 - —
soluble, bgs., c.l. lb. .13 - .15
t.c.l. lb. .15½ - 19¼
Bloodroot, bls lb .48 - .50
Blue, alkali, dry, 270-lb. bbls., dlvd. N. of Tenn. and N. C., E. of Miss. R. including St. Paul, Minneapolis, Davenport, Rock Island, St. Louis lb. 2.10 - —
toner, 125-lb. bbls., Ellis flushed, same basis lb. 1.20 - —
Chinese, bbls., c.l., same basis lb. .50 - —
t.c.l., ton lots, same basis lb. .51 - —
smaller lots, same basis lb. .52 - —
Cobalt, genuine, bbls., same basis, lb. 4.90 - —
Imitation (see Blue, ultramarine).
Dyes (see Dyes).
Iron (see Blue, Chinese Milori, Potash, Prussian and Soda).
Methyl, chloride adjusted, PMA, bbls., same basis lb. 2.75 - —
tungstated, PTMA, bbls., same basis lb. 4.00 - 4.15
Milori, bbls., c.l., same basis lb. .50 - —
t.c.l., ton lots, same basis lb. .51 - —
smaller lots, same basis lb. .52 - —
Peacock, fugitive, 100% color strength bals same basis, lb. .85 - —
Phthalocyanide, full strength, bbls same basis lb 3.45 - —
resinated bbls same basis lb 3.00 - —
water dispersable bbls., same basis lb 1.54 - —
Potash, CP, bbls., same basis lb. .56 - —
Potash, CP bbls same basis lb. .56 - —
Prussian, insoluble soluble, bbls., c.l., same basis lb. .50 - —
t.c.l. ton lots, same basis lb. .51 - —
smaller lots, same basis lb. .52 - —
Soda, CP, bronze, bbls., c.l., same basis lb. .50 - —
t.c.l., ton lots, same basis lb. .51 - —
smaller lots, same basis lb. .52 - —
Ultramarine, cobalt type, dry or pulp, bbls same basis lb. .30½ - 35
jobbing types bbls. same basis, lb. .19 - —
regular types, dry, bbls., same basis lb. .22½ - 35
Victoria toner, molybdated, PMA, bbls lb. 4.10 - —
tungstated, PTMA, bbls lb. 5.35 - —
Blue dry colors, dlvd, prices ½c. higher Ala., Fla., Ga., La. (Shreveport 1½c.), Miss., N. C., S. C., Tenn., Tex. (El Paso 2c.), Cedar Rapids, Des Moines, Kansas City, Lincoln, Omaha, St. Joseph 1.6c. higher. Pac. Coast, Denver, Pueblo, Salt Lake City, Wichita, frt. equalized with Chicago.
Vitriol (see Copper sulfate).
Bluestone (see Copper sulfate).
Bonemeal, steamed, works, E ton 60.00 - —
Los Angeles ton 82.00 -
Bone phosphate defluorinated (see D) of lime (see Calcium phosphate, tribasic).
precipitated (see Calcium phosphate tribasic, NF, precip.)
Borax, tech., anhyd., 99½%, bgs., c.l., works ton 80.50 - —
ton lots, ex whse., N. Y. or Chicago ton 130.25 - —
bulk, c.l., works ton 71.50 - —
cryst., 99½%, bgs., c.l., works, ton 69.25 - —
ton lots, ex-whse., N. Y. or Chi ton 119.00 - —
smaller lots, same basis, ton 124.00 - —
gran., decahydrate, 99½%, bgs., c.l., works ton 43.25 - —
ton lots, ex whse., N. Y., Chi ton 93.00 - —
smaller lots, same basis, ton 98.00 - —
bulk, c.l., works ton 36.75 - —
pentahydrate, 99½%, bgs., c.l., works ton 57.75 - —
ton lots, ex whse., N.Y., Chi ton 107.50 - —
smaller lots, same basis, ton 112.50 - —
bulk, c.l., works ton 51.50 - —
powd., 99½%, bgs., c.l., works, ton 48.25 - —
ton lots, ex-whse., N. Y. or Chi ton 98.00 - —
smaller lots, same basis, ton 103.00 - —
Borax packed in kgs., $45.50 per ton higher than in paper bgs.; in barrels, $24.50 higher. USP borax $15 per ton higher.

WHAT BROMINE OFFERS YOU

HIGHER YIELDS

omine compounds give higher processing yields in:

Quarternary salt formations
Williamson ether synthesis
Alkylation of malonic or acetoacetic esters
Reformatsky reactions
Nitrile formations
Hydrolysis to carbinols
Ullmann reactions
Grignard reactions in the aromatic series.

PROCESSING ADVANTAGES

Oxidation potential of bromine is lower than that of elemental chlorine or fluorine. This minimizes decomposition of hydrocarbons in halogenation reactions.

Melting points of bromides are higher than those of chlorides or fluorides. This usually makes isolation easier — an important advantage to the research chemist.

Many reactions with brominated hydrocarbons may be carried out at atmospheric pressure and relatively low temperatures whereas the corresponding chlorides and fluorides require much more vigorous conditions to react. This may be an important processing advantage.

Bromine is handled as a liquid — does not require pressurized equipment.

- Bromine compounds have exceptionally high densities — the highest of any organic compounds with few exceptions. This may be advantageous in processes involving liquid-liquid separations.
- The very low vapor pressure of brominated hydrocarbons may be an important advantage in some applications.
- Various inorganic bromides are useful catalysts in reactions involving intramolecular rearrangements.

NEW PRODUCT OPPORTUNITIES

- Bromine imparts greater fire resistance to organic compounds than low molecular weight halogens. This property has proved useful in fire extinguisher fluids and in fire proofing cloth. It might also have advantages in plastics.
- Bromine and compounds which readily release bromine are active germicides, bactericides and algicides.
- Bromine compounds are valuable in the manufacture of dyes because they impart unique color tones.
- New pharmaceuticals are possible with bromine compounds as intermediates.
- Bromine compounds are useful in the synthesis of photographic chemicals, vitamins, cosmetics and flavors.

Michigan Chemical will be glad to aid you with your present bromide needs, or to help you in basic bromine research. Write or phone us.

MC **

MICHIGAN CHEMICAL CORPORATION

516 Bankson Street, Saint Louis, Michigan
EASTERN SALES OFFICE: 230 Park Avenue, New York 17, New York

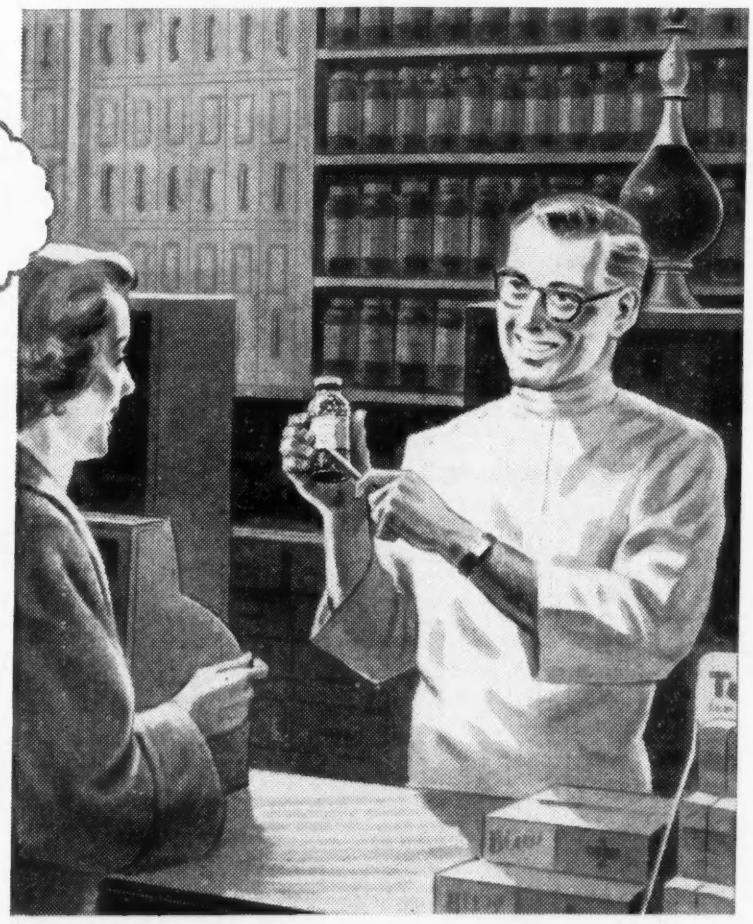
C-56-8 *Reg. U.S. Pat. Off.

Bordeaux Mixture—Carotene

Bordeaux mixture, bgs., c.l., works, frt. alld. or nearest whse, pt. lb. .18 - .24
l.c.l., same basis ..... lb. .19 - .26
Borneol, crns ..... lb. 2.50 - 4.50
Boron trifluoride gas, cyls., truck-load, works lb. .62 - —
l.t.l., works ..... lb. .70 - —
Brazilwood extract (see Hypernic extract).
Brimstone (see Sulfur).
Bromine, purif., cs., c.l., t.l., dlvd. E. of Rockies lb. .31 - —
l.c.l., same basis ..... lb. .33 - .38
ret. dms., c.l., t.l., dlvd. E. of Rockies lb. .30 - —
l.c.l., same basis ..... lb. .30 - .32
tanks, same basis ..... lb. .21½- —
Bromochloromethane, dms., c.l., frt. equald lb. .48 - —
l.c.l., same basis ..... lb. .50 - —
Bromoform, pharmaceutical grade, bots lb. 1.62 - 2.60
cbys. ..... lb. 1.52 - —
Bromstyrol, bots ..... lb. 5.40 - 5.70
Bronze powder aluminum (see A).
Brown, iron oxide, pure bgs., c.l., works lb. .14¼- —
l.c.l., works ..... lb. .14½- —
Oxide, metallic, bgs., works lb. .04 - —
Sienna, burnt., paper bgs., c.l., works lb. .06¼- .17¼
l.c.l., works ..... lb. .06½ .17½
raw, paper bgs., c.l., works lb. .06¼- .16¼
l.c.l., works ..... lb. .06½- .16½
Brown, umber, burnt, American, c.l., works lb. .07 - .07¾
l.c.l., works ..... lb. .07¼- .08
Turkey type, bgs., c.l., Boston, Bethlehem, Easton, Pa., Hiwassee, Va., N. Y. lb. .07¾- —
raw, American, bgs., works lb. .07½- .08¼
Turkey-type, bgs., works lb. .06¾- .07
Vandyke, bbls., works ..... lb. .09½- .12
Brucine, cns., 100-oz. lots ..... oz. .20 - .25
Sulfate, NF cns., 100-oz. lots oz. .15 - .20
Buchu leaves, bls ..... lb. .85 - —
Butadiene, refd., cyls., c.l. refy lb. .21 - —
l.c.l., refy. ..... lb. .22 - —
tanks, refy ..... lb. .15 - —
Butane, indust., tanks, group 3 gal. .04½- —
N. Y. harbor ..... gal. .08 - —
n-Butyl acetate, ferment., dms., c.l., frt. alld lb. .16 - —
l.c.l., same basis ..... lb. .17 - —
tanks, same basis ..... lb. .13½- —
syn., dms., c.l., dlvd. E. ..... lb. .16 - —
l.c.l., same basis ..... lb. .17 - —
tanks, same basis ..... lb. .13½- —
sec-Butyl acetate, syn., dms., c.l., dlvd. E lb. .13 - —
l.c.l., same basis ..... lb. .13¾- —
tanks, same basis ..... lb. .11¼- —
Butyl alcohol (see Alcohol, n-Butyl).
Aldehyde (see Butyraldehyde).
Chloride, dms., c.l., works ..... lb. .37½- —
l.c.l., works ..... lb. .38 - —
Ether, dms., c.l., works ..... lb. .32¾- —
l.c.l., works ..... lb. .33¼- —
tanks, works ..... lb. .31 - —
Butyl lactate, dms., c.l., frt. alld., E. of Rockies lb. .42½- —
l.c.l., same basis ..... lb. .43½- —
tanks, same basis ..... lb. .40 - —
Laurate, dms., works ..... lb. .39 - —
Methacrylate, dms., c.l., t.l., works. lb. .55 - —
l.c.l., works ..... lb. .55½- —
Oleate, refd., dms., l.c.l., works lb. .32 - —
Phenylacetate, dms. ..... lb. 4.50 - 4.60
Phthalate (see Dibutyl phthalate).
Stearate, dms., c.l., frt. equald. lb. .25 - —
l.c.l., same basis ..... lb. .26 - —
Butylamine (see mono-, di-, and tri-).
6-tert-Butyl-m-cresol, dms., c.l., works lb. .55 - —
l.c.l., works ..... lb. .56 - —
tanks, works ..... lb. .54 - —
p-tert-Butylphenol, bgs., c.l., works. lb. .25½- —
Butyraldehyde, dms., c.l., dlvd. lb. .21½- —
l.c.l. dlvd ..... lb. .22½- —
tanks, dlvd ..... lb. 19½ —
Butyric ether (see Ethyl butyrate).

C

Cacao butter (see Cocoa butter).
Cadmium iodide, 25-lb. fib. dms lb. 6.75 - 7.00
Metal ingots or sticks, cs., dlvd. lb. 1.70 - —
Caffeine, USP, nat., cryst., anhyd., dms., 100-lb. lots or more lb. 3.00 - —
hydrous, dms., 100-lib. lots or more lb. 2.80 - —
syn., cryst., anhyd., dms., 100-lb. lots or more lb. 3.00 - —
hydrous, 100-lb. lots or more lb. 2.80 - —
Citrated, USP, dms., 100-lb. lots or more lb. 2.70 - —
Calamine, USP, dms ..... lb. .34 - —
Calciferol, cryst., vials, 1-kilo lots, works gram. .60 - —
25 to 100 gram lots, works. gram. .65 - —
in edible oil (see Viosterol).
Calcium p-aminosalicylate, fib., dms., 1,000 lb. lots, frt. adjusted lb. 7.00 - —
smaller lots, same basis ... lb. 7.05 - 7.50
Arsenate, dealers, bgs., c.l., frt. alld. lb. .09 - .09½
l.c.l., same basis ..... lb. .10 - .10½
Bromide, NF, jars ..... lb. .94 - .98
Carbide, standard generator size, dms., c.l., dlvd. ton.134.40 - —
Carbonate, nat., dry-grd., ALF floated,, 325 mesh, bgs., c.l., works ton.10.50 - —
chalk, whiting, 325 mesh, bgs. works ton.32.00 -34.00
water-grd., ½ to 10 microns, bgs., c.l., works ....ton.30.00 - —
10 to 20 microns, bgs., c.l., works ton.17.00 -18.00
precip., dense, bgs., c.l., works. ton.32.50 - —
l.c.l., works ..... ton.42.50 - —
medium, bgs., c.l., works ton.38.00 - —
l.c.l., works ..... ton.48.00 - —
surface treated, bgs., c.l., works ton.37.50 - —
l.c.l. works ..... ton.47.50 - —
ultrafine, bgs., c.l., works. ton.110.00 -160.00
l.c.l., works ..... ton.120.00 -175.00
Chloride, cryst., purif., dms lb. .27 - —
flake, 77-80%, paper bgs., c.l., works, frt. equald ..... ton.29.00 - —
liquor, 40%, tanks, frt. equald. ton.12.35 - —
pellets bgs., c.l., works ....ton.35.40 - —
powd., bgs., c.l., works ..... ton.35.00 - —
solid, 73-75%, dms., c.l., frt. equald ton.27.50 - —
l.c.l., works, same basis. ton.34.00 -71.00
USP, gran., dms. ..... lb. .32 - —
Chromate bgs., frt. equald ... lb. 29½- .30
Cyanide, dms., dlvd. E. of Rockies lb. .24 - .50
Cyclamate, 100-lb. fib. dms.... lb. 2.95 - —
Gluconate, AA, bbls., dms.... lb. .74 - .76
USP, bbls., dms ..... lb. .67 - .69
Hydride, dms., works ..... lb. 2.15 - 3.00
Hypochlorite, high test, 45-lb. cs., dlvd. E. of Rockies cs.22.60 -24.75
100-lb. dms., same basis dm.28.65 -32.50
Hypophosphite, dms., ton lots or less lb. .90 - .93
Iodide, jars ..... lb. 4.52 - —
Lactate, NF, dms., 10,000-lb. lots or more, works lb. .36 - .40
smaller lots, works ... lb. .41 - .48
Mandelate, USP, dms., works lb. 2.10 - 2.25
Naphthenate liq., 4% Ca., dms., frt. equald lb. .27¼- —
Nitrate, fertilizer grade, bgs., c.l., Los Angeles ton.46.00 - —
tech., 5 dm., works ..... lb. .13 - —
Pantothenate, dms., bots., frt. adjusted gram. .045 - —
Para-aminosalicylate (see Calcium p-Aminosalicylate).
Phenolsulfonate, dms ..... lb. .70 - —
Phosphate, dibasic, USP, bgs., c.l., frt. equald 100 lbs. 7.75 - —
l.c.l., frt. equald 100 lbs. 8.50 - —
feed grade, 18½%P, bgs., c.l., t.l., frt. equald ..ton.79.55 -83.25
l.c.l., frt. equald ..ton.88.25 -93.25
21% P, bgs., c.l., t.l., frt. equald ..ton.94.50 - —
l.c.l., frt. equald ..ton.99.50 -104.50
monobasic, bgs., 10,000-lb. lots, frt. equald 100 lbs. 6.90 - —
smaller lots, same basis, 100 lbs. 7.40 - —
tribasic, NF, precip., bgs., c.l., frt equald 100 lbs. 8.25 - —
l.c.l., frt. equald 100 lbs. 9.00 - —
Phytate, bgs., works ..... lb. .50 - —
Resinate, precip., dms., frt. alld., works lb. .30½- —
Silicate, hydrated, bgs., c.l., works. lb. .06 - —
l.c.l., works ..... lb. .06½- —
paint grade (see Wollastonite).
Stearate, ctns., c.l ..... lb. .37 - —
l.c.l ..... lb. .38 - .42
Sulfate (see Gypsum).
Calomel, USP, powd., dms ..... lb. .42 - —
Camphene 46° m.p., dms., incl., c.l., works lb. .15 - —
l.c.l., same basis ..... lb. .16½- —
tanks, same basis ..... lb. .12½- —
Chlorinated, 67-69% (see Toxaphene).
Camphor, monobromated, NF, dms., kgs lb. 3.55 - —
nat. USP powd., cs., 100-lb. lots. lb. .60 - .65
tablets, 1-oz., ½-oz. cs ... lb. .85 - .90
syn., tech., 1 bbl. or more ... lb. .48 - —
USP, gran., powd., bbls., 2,000-lb. lots lb. .59 - —
1,000-lb. lots ..... lb. .60 - —
smaller lots ..... lb. .61 - —
tablets, tins, 2,000-lb. lots lb. .90 - —
1,000-lb. lots ..... lb. .91 - —
smaller lots ..... lb. .92 - —
Canada balsam (see Fir balsam).
Cantharides, Chinese, cs ..... lb. 2.00 - 2.05
powd., bxs ..... lb. 2.25 - 2.30
Russian, bgs ..... lb. 4.00 - 4.05
powd., bxs ..... lb. 4.35 - 4.40
Capsicum (see Pepper red).
Oleoresin, NF, from domestic pepper, dms lb. 4.50 - 5.25
from African pepper, dms... lb. 4.35 - 5.00
Caraway seed, Dutch, bgs ..... lb. .16½- .17
Carbazole, 97%, bbls., ton lots, works lb. 1.05 - —
Carbon dioxide, indust., wholesale, bulk, dlvd. metropolitan area. ton.73.00 -115.00
cyls., same basis ..... lb. .08 - —
solid, same basis ..... lb. .035 - .040
Disulfide, 55-gal. dms., c.l., works, frt. equald. to competitive points lb. .07 - —
l.c.l., same basis ..... lb. .08¼- .09
5-gal. dms., 30 dms. to c.l., same basis lb. .13 - —
less than 30 dms ..... lb. .16 - —
tanks, dlvd. ..... lb. .0545- —
Tetrachloride, CP, consumers, dms., c.l., l.c.l., frt. alld. lb. .11½- .13¾
tech., consumers, dms., c.l., E. of Rockies, frt. alld lb. .10½- —
W. of Rockies, f.o.b. stockpoints lb. .11 - —
l.c.l., E. of Rockies, frt. alld lb. .12¾- —
W. of Rockies, f.o.b. stockpoints lb. .13¼- —
tanks, E. of Rockies, frt. alld. lb. .09½- —
Carboxymethyl cellulose (see CMC).
Carbromal, NF, dms., 100-lb. lots, works lb. 4.00 - 4.25
smaller lots, works ..... lb. 4.10 - 4.75
Cardamom seed, bleached, "A" lb. 3.20 - —
"B" ..... lb. 3.10 - —
decorticated, Ceylon, cs ..... lb. 1.95 - —
Guatemalan, cs ..... lb. 2.95 - —
green, Ceylon, bgs. ..... lb. 2.10 - 2.15
Carmine, No. 40, NF, bulk, 100-lb. lots or more, dlvd lb.14.40 - —
smaller lots, dlvd ..... lb.14.50 -15.20
Carotene, tech., 1,350,000 A units per gram, tins, 5-10 kilo lots, dlvd. gram. .295 - —



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Pure Metasap stearates guard Quality of medicines...

Uncounted millions of pharmaceutical tablets include small amounts of stearate to keep them firm, avoid chipping. Here purity of Metasap stearate is vital—truly justifying our efforts to produce the cleanest stearates made!

Metasap stearates are prescribed as processing agents in foods, cosmetics, textiles, too...and in many other products where even a few tiny impurities might damage performance and thereby reputation of the maker. That's why "*clean*" isn't enough—that's why we do all that modern equipment and painstaking skill can achieve to turn out *the cleanest stearates made anywhere in the world!*

Metasap uses the most complete series of fine screens, magnetic traps and filters in the industry—we even carefully filter all air in our processing plant! So depend on this—for stearates of supreme uniformity and quality specify Metasap. Our technical Service Department will gladly give you every assistance.

Some industries served by Metasap

PAINT *makers solve pigment suspension problems with Metasap Stearates, producing primers and sanding sealers that have excellent filling qualities.*

LACQUER AND VARNISH *makers use Metasap Stearates to assure efficient flatting, and to obtain better finishes.*

PLASTICS *molders use Metasap Calcium, Zinc, and Barium Stearates to improve internal lubrication, which assures superior preforms, better finished products, and longer mold life.*

RUBBER *processors use Metasap Zinc and Magnesium Stearates to lubricate molds and prevent uncured stock from sticking.*

LUBRICANTS—*Grease makers use Metasap Stearates because these outstanding soaps afford a wide range of quality bases that help producers to meet any grease specifications.*

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METASAP CHEMICAL COMPANY
HARRISON, NEW JERSEY • Chicago, Ill. • Boston, Mass.
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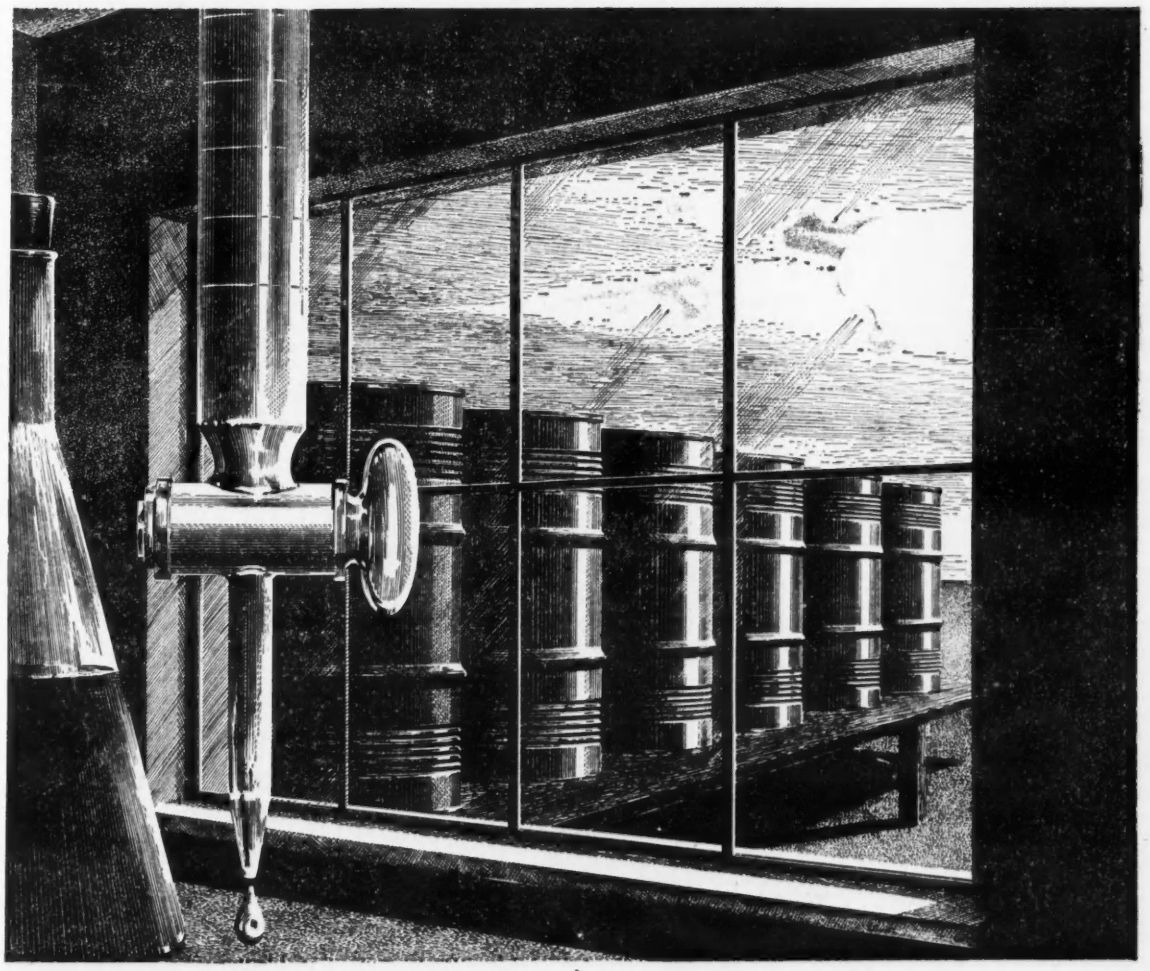
the cleanest stearates made

A NOPCO Subsidiary

Carotene, tech., in carrot oil, 5,000,000 to 8,000,000 A units per lb., dms., works, million units.	.12	—
microcrystalline in oil, 400,000 A units per gram. dms., dlvd. million units.	.21	—
b-Carotene, pure, crystalline, 1,600,000 A units to 1,670,000 per gram., cns gram.	.35	—
in vegetable oil, 400,000 A units per gram, cns. gram.	.084	—
Carvol, bots lb.	4.50	8.00
Cascara sagrada bark, bulk lb.	.30	Nom.
Casein, dom., acid precip., standard, bgs., 10,000-lb. lots or more, shipt. point lb.	.32	Nom.
premium, bgs., 10,000-lb. lots or more, shipt. point lb.	.38	—
imp., Argentine, acid-precip., grd., bgs., c.l., duty paid lb.	.21½	.22
New Zealand, same basis lb.	.26	.27
Cashewnut shell liquid, treated, dms., c.l., Newark, N. J. lb.	.22	—
ton lots, same basis lb.	.23	—
dm. lots same basis lb.	.25	—
Cassia, Batavia, "A", bls lb.	.19½	.20
"B" lb.	.19	.20
"C" lb.	.17½	.18
Corinje "A" lb.	.20	—
"B" lb.	.19½	—
"C" lb.	.18¾	.19
Castor beans, bgs., f.o.b. Brazil ton.	160.00	165.00
Oil (see Oil, castor)		
Pomace, bgs., c.l., works ton.	35.00	40.00
Castoreum, nat., cns lb	5.00	30.00
syn., cns lb.	9.00	—
Catechol, CP, cryst., fib. dms., works lb.	2.17½	—
resub., dms., works lb.	4.29½	—
Catnip leaves, Southern, bls lb.	.75	—
Celery seed, French, bgs lb.	.43	.44
Alleppey, bgs. lb.	2.15	2.20
Indian, bgs. lb.	.17	.17½
Cellulose acetate, flake, powd., ctns., bgs., 100-lb. lots or more, dlvd. E lb.	.35	.46
Acetate-butyrate, powd., 17% butyryl content, bgs., dlvd E. lb.	.545	.555
27% butyryl content, bgs., dlvd. E lb.	.595	.605
38% butyryl content, bgs., dlvd. E lb.	.545	.555
50% butyryl content, bgs., dlvd E lb.	.585	.595
half-second, bgs., dlvd. E. lb.	.543	.555
Scrap (see Pyroxylin scrap).		
Cerium chloride, dms., dlvd. lb.	.35	—
Hydrate 74% CeO_2, fib. dms., 100-lb. lots or more lb.	1.44	—
77% CeO_2, fib. dms., 100-lb. lots or more lb.	1.74	—
Oxalate NF, bbls., bgs., works. lb.	1.32	—
Oxide, optical grade, bgs., 50-lb. lots or more, dlvd lb.	1.85	1.98
smaller lots, dlvd lb.	2.03	2.23
Chalk (see Calcium carbonate).		
Chamomile flowers, Hungarian style, cs. lb.	.78	—
Roman, cs lb.	1.50	—
Charcoal, activated, NF, fib. dms., c.l., works lb.	.25	.32
5-ton lots, works lb.	.26½	.32½
smaller lots works lb.	.27	.50
Bone (see Black, bone).		
Hardwood, bulk, c.l., f.o.b. plant. ton.	52.00	—
Briquets, bulk, c.l., f.o.b. plant. ton.	75.00	80.00
40-lb. paper bgs., c.l., same basis ton.	81.00	85.00
lump, bulk, c.l. ton.	55.00	—
Pinewood, gran., bgs., c.l., works, South ton.	57.00	—
l.c.l., works, South ton.	57.00	67.00
lump, bgs., c.l., works, South. ton.	53.50	—
l.c.l., works, South ton.	56.50	71.00
bulk, c.l., works, South ton.	38.00	—
t.l., works, South ton.	41.00	—
Chestnut extract, liq., 25% tannin, tanks, works lb.	.04	—
powd., 60% tannin, bgs., extra, c.l., works lb.	.1032	—
l.c.l., works lb.	.1102	—
Chloral, tech., 94% min., dms., c.l., multiple units, 5 cars, works, tanks, works lb.	.21	—
Hydrate, USP, 40-lb. jars, 1,000-lb. lots lb.	1.00	—
l.c.l., works lb.	.24	—
500-lb. lots lb.	1.03	—
100-lb. lots or less lb.	1.05	—
Chloramine T, NF, bbls., works lb.	.75	1.00
Chlordan, agricultural, dms., c.l., frt. alld lb.	.65	—
l.c.l., 5,000 to 10,000-lb. lots, frt. alld lb.	.66	—
clarif., dms., c.l., frt. alld lb.	.69	—
l.c.l., 5,000 to 10,000-lb. lots, frt. alld lb.	.70	—
Chlorinated paraffin, 42%, dms., c.l., frt. alld lb.	.16¼	—
l.c.l., same basis lb.	.17¼	—
70%, dms., c.l., same basis lb.	.18¾	—
l.c.l., same basis lb.	.19¾	—
Rubber, 5, 10, 20 cps., ctns., c.l., works lb.	.55	—
l.c.l., works lb.	.56	—
125, 1,000 cps., ctns., c.l., works lb.	.65	—
l.c.l., works lb.	.66	—
Chlorine, liq., cyls., c.l., works, frt. equald lb.	.10¼	—
l.c.l., Metropolitan area lb.	.11¾	.13
tanks, single units, works, frt. equald 100 lbs.	3.05	—
multiple units, 5 cars, works, frt. equald 100 lbs.	3.92	—
3 cars, same basis 100 lbs.	4.12	—
2 cars, same basis 100 lbs.	5.12	—
1 car, same basis 100 lbs.	7.12	—
4-Chloro-2-aminotoluene, fused, bbls. lb.	1.45	—
m-Chloroaniline, dms., min. 10,000 lbs. or over, frt. alld lb.	.75	—
less than 10,000 lbs., same basis. lb.	.80	—
tanks, same basis lb.	.73	—
o-Chloroaniline, dms., c.l., frt. equald. lb.	.70	—
l.c.l., same basis lb.	.72	—
tanks, same basis lb.	.68	—
p-Chloroaniline, dms., c.l., works, frt. equald lb.	.75	—
l.c.l., same basis lb.	.77	—
o-Chlorobenzaldehyde, dms., t.l., works lb.	1.05	—
l.t.l., works lb.	1.20	—
p-Chlorobenzaldehyde, dms., c.l., works lb.	1.95	—
Chloroform, tech., dms., c.l., dlvd. E lb.	.18	—
l.c.l., same basis lb.	.19	—
tanks, same basis lb.	.17	—
USP, dms lb.	.30	—
2-Chloro-4-nitroaniline, paste, dlvd. E., 100% basis lb.	.81	—
powd., dlvd. E., 100% basis lb.	.86	—
4-Chloro-2-nitroaniline, powd., dlvd. E lb.	.80	—
o-Chlorophenol, dms., c.l., frt. equald. lb.	.35½	—
l.c.l., same basis lb.	.36½	—
p-Chlorophenol, dms., c.l., frt. equald lb.	.35½	—
l.c.l., same basis lb.	.36½	—
Chlorophyll, oil-soluble, not fixed, 4% pails, tins, works lb.	4.25	—
copper fixed, 6½%, tins, pails, works lb.	4.23	—
dms., pails, works lb.	3.75	—
8%, pails, dms., works lb	4.00	4.80
14%, dms., works lb.	8.90	—
Chlorophyll, conc., dom., 50%, dms., works, 100% basis lb.	42.00	—
75%, dms., works, 100% basis lb.	45.00	—
90%-100%, dms., works, 100% basis lb.	45.00	—
imp., 60%, tins, 100% basis. lb.	58.00	—
75% tin, 100% basis lb.	58.00	—
90% tins, 100% basis lb.	58.00	—
Chloropicrin, coml., bots lb.	1.50	—
cyls., 180 lbs., frt. alld lb.	.95	—
100 lbs., same basis lb.	.97	—
25 lbs., same basis lb.	1.22	—
Choline bitartrate, fib. dms., frt. adjusted lb.	1.25	1.35
Chloride, fib. dms., frt. adjusted. lb.	1.25	1.35
Dihydrogen citrate, fib. dms., frt. adjusted lb.	1.25	1.35
Chromium acetate, soln., 7½%, bbls., works lb.	.09½	—
cbys., works lb.	.11¼	—
Fluoride, bbls., works lb.	.51	.52
Green (see Green, chrome).		
Oxide (see Green chromium oxide).		
Trioxide, NF, bots lb.	.82	.89
Yellow (see Yellow chrome).		
Cinchona bark, NF, red, broken, bgs lb.	.35	.40
yellow, broken, bgs lb.	.35	.40
Cinchonidine, cryst., cns., 100-oz. lots. oz.	.65	—
Sulfate, cns., 100-oz. lots oz.	.35	—
Cinchonine, cryst., cns., 100-oz. lots. oz.	.52	.57
Sulfate, NF, cns., 100-oz. lots oz.	.27½	.30½
Cinchophen, NF, heavy density, dms., frt. adjusted lb.	3.70	4.03
standard density, dms., same basis lb.	3.50	3.85
Cinchophen-sodium, dms., frt. adjusted lb.	4.50	4.85
Cinnamic alcohol (see Alcohol cinnamic).		
Aldehyde, cns., dms lb.	1.00	1.30
Cinnamon, Ceylon, No. 2, bgs lb.	.88	—
"000", bgs., afloat lb.	1.06	—
Citral, bots., cns lb.	5.45	5.90
Citronellal, bots., dms lb.	3.10	—
Citronellol, bots., dms. lb.	4.85	5.15
Civet, artif, bots lb.	13.75	15.00
nat., bots oz.	7.50	15.00
Clay, ball, dom., airfloated, bgs., c.l., Tenn ton.	19.50	—
crushed, shed moisture, bulk, c.l., Tenn ton.	10.00	—
purif., bgs., c.l., Tenn ton.	20.50	—
imp., airfloated, bgs., c.l., Atl. port ton.	42.00	45.00
lump, bulk, Atl. port ton.	27.00	30.20
China, dom., dry-grd., airfloat, 99% 325 mesh, bgs., c.l., Georgia, works ton.	10.00	—
l.c.l., Georgia, works ton.	15.50	—
300 mesh, bgs., c.l., Georgia, works ton.	13.50	14.50
l.c.l. ton.	35.00	36.00
imp., white, lump, bulk, c.l., ex-dock, Phila., Portland, Me. gross ton.	20.00	35.00
powd., bgs., c.l., ex dock net ton.	50.00	—
l.c.l., ex whse net ton.	60.00	65.00
Clove, Madagascar, bgs lb.	.39	.40
Zanzibar, bgs. lb.	.48	—
CMC, crude, 96%, low or medium vis., bgs., or fib. dms., 23,000 lbs., dlvd. E., 100% basis lb.	.37	—
less than 23,000 lbs., dlvd. E., 100% basis lb.	.41	—
65%, low or medium vis., bgs., or fib. dms., c.l., dlvd. E., 100% basis lb.	.37	—
l.c.l., dlvd E. 100% basis. lb.	.41	—
purif., high vis. (see Gum Cellulose).		
standard, low or medium vis., bgs., 23,000 lbs. or over, works, frt. alld lb.	.55	—
smaller lots, same basis lb.	.57	—
CMC prices W. of the Rockies are 2c. per lb. lower and are on a works basis.		
Coaltar, crude, resale for solns., dms., c.l., ex-whse gal.	.255	—
l.c.l., ex-whse gal.	.275	—
tanks, ex works gal.	.155	.159
refd., resale, dms., c.l., ex-whse. gal.	.2650	.32
l.c.l., ex-whse gal.	.2850	.34
tanks, ex-whse gal.	.1650	.1760
Cobalt acetate, 23.7%, dms., dlvd. lb.	1.20	—
Carbonate, 46% powd., bgs., dlvd. lb.	1.85	—
Chloride, 24.2% Co., dms., dlvd. lb.	1.20	—
Hydrate, 60-61% Co., dms., dlvd. lb.	2.62	—



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Shipping in USS Steel Drums means maintaining your own rigid quality control measures right into your customer's plant. Special measures taken in the manufacture of USS Steel Drums make them able to act as a rolling Fort Knox, keeping your product clean and pure—all the way.

To protect your product against contamination, every drum-body, head and bottom is freed of ALL manufacturing dirt, grease and scale. With component parts virtually "hospital clean" the drum-parts are ready for the final step. This consists of applying all inside and outside surfaces with a special phosphate solution that inhibits rusting and serves as an excellent bond for external paint application. The USS Steel Drum is ready for its job of protecting your product from contamination.

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UNITED STATES STEEL

Cobalt Linoleate—Dibutyl Tartrate

Cobalt linoleate, fused, 8½% Co., dms lb. .75¾- —
liq., 6% Co., dms lb. 61 - —
Metal, 97-99%, kgs., ex whse lb. 2.60 - —
Naphthanate, liq., 6% Co., dms., dlvd lb. .48¼- —
Nitrate, 20.1% Co., bbls., dlvd lb. 1.00 - —
Oxide, black, 72½-73½% Co., kgs lb. 1.96 - —
70-71% Co., kgs lb. 1.90 - —
Phosphate, powd., 32.1% Co., kgs., dlvd lb. 1.69 - —
Resinate fused, 3% Co., dms. lb. .29¾- —
Sulfate cryst., 21% Co., dms., dlvd lb. .79 - —
monohydrated, 33% Co., dms., dlvd lb. 1.32 - —
Tallate, 6% Co., dms., dlvd lb. .43¾- —
Cocaine, USP, cns. 100-oz. lots oz. 17.80 —
Hydrochloride, cns. 100-oz. lots oz. 13.75 —
Cocoa butter, bgs lb. .47 - .52
Codeine, NF, cns. 100-oz. lots oz. 13.25 - —
Hydrochloride, cns., 100-oz. lots oz. 11.75 - —
Phosphate, USP, cns. 100-oz. lots oz. 10.25 - —
Sulfate, USP, cns., 100-oz. lots oz. 10.75 - —
Codliver oil (see Oil, codliver).
Cohosh root, black, bls lb. .20 - .22
blue, bls lb. .20 .22
Colchicine, USP, bots., cns. oz. 33.50 40.00
Colchicum root, bls lb. .45 .55
seed, bgs lb. .75 1.00
Collodion, USP, dms. lb. .32½- —
flexible, dms. lb. .34 - —
Colocynth, pulp, bls lb. .25 - .30
Colombo root, bls lb. .15 - .16
Condurango bark, bales lb. .40 .50
Copaiba balsam, cns., dms lb. .90 1.20
Copper acetate, bbls., c.l., works lb. .53 - —
l.c.l., works lb. .54 - —
Carbonate, 55%, bgs., c.l., works, lb. .4075- —
l.c.l., works lb. .4225- —
Chloride, anhyd., bbls., works lb. .50¾- .51¼
cryst., bbls., works lb. .34¾- .35¼
Cyanide, tech., bbls., 20,000-lb. lots or more lb. .80½- —
1,000-lb. lots or more lb. .81½- —
smaller lots lb. .83½- —
Gluconate, dms lb. 3.15 - 3.35
Hydrate, dms., l.c., frt. alld. E. of Miss lb. .57 - —
l.c.l., same basis lb. .57½- —
Metal, electrolytic, dlvd., Valley basis lb. .46 - .49½
Naphthenate, liq., 8% Cu, dms., frt. alld lb. .24½- —
Nitrate, tech., cryst., bbls., works, lb. .33¼- —
Oleate, solid, 9% Cu, dms., works lb. .45 - —
Oxide, black, bbls., 100-2,000-lb. lb. lots, works lb. .57 - .64½
red, 97%, USN Type I, bbls., 100-5,000 lb. lots lb. .69½- .83½
90%, USN Type II, bbls., 100-5,000 lots or more, works, lb. .57½- .67½
Oxychloride, dms., c.l., works lb. .55 - —
l.c.l., works lb. .55½- .65½
Quinolinolate, fib, dms lb. 4.25 - 4.50
Resinate, precip., dms., frt. alld lb. .31½- —
Copper sulfate, CP, gran., bbls., works lb. .2360- —
cryst., 99%, bgs., c.l., works, 100 lbs. 16.70 - —
l.c.l., same basis 100 lbs. 17.20 -19.70
Monohydrated, 35%, c.l., works, 100 lbs. 27.00 - —
l.c.l., works 100 lbs. 27.75 - —
tribasic, dealers, bgs., c.l. works, frt. equald. 100 lbs. 35.85 - —
l.c.l., same basis 100 lbs. 37.35 - —
Undecylenate, dms lb 2.00 3.00
Copra, Atlantic, Gulf ports, c.i.f. ton. 175.00 - —
Pacific ports, c.i.f. ton. 170.00 - —
Coriander seed, Moroccan, bgs lb. .09½- —
Roumanian, bgs lb. .08½- —
Yugoslavian, bgs lb. .08¾- .09
Corn sugar, tanners, chipped, paper bgs., c.l., 60,000 lbs. min. 100 lbs. 7.16 - —
l.c.l. 100 lbs. 7.31 - —
Syrup, 42°, dms., c.l 100 lbs. 7.13 - —
l.c.l. 100 lbs. 7.28 - —
Corrosive sublimate (see Mercuric chloride).
Cortisone acetate, NNR, bulk gram. 3.50 3.55
Cottonseed meal, expeller, 41%, bgs., Memphis ton. 53.00 - —
solvent, same basis ton. 51.00 - —
Cramp bark, NF, bls lb. .85 .9
Coumarin, NF, cryst., dms. lb. 3.20 3.45
Cream of tartar (see Potassium bitartrate).
Creosote carbonate, NF, bots, chys. lb. 3.05 3.26
Coaltar, crude, tanks, works, frt. adjusted gal. .22 —
soln., 80%, tanks, works gal. .2068- —
refd., dms., c.l., works gal. .40 .42
l.c.l., same basis gal. .50 .53
tanks, same basis gal. .30 .33
Wood, beechwood, cbys., dms lb. 1.60 - 1.65
hardwood, NF, bots., cbys lb 1.30 1.35
pinewood, dms., c.l., incl lb. .0561 - —
l.c.l., incl lb. .0634- —
N.Y. whse., dms., l.c.l. incl. lb. .0745- —
tanks, works lb. .0460- —
Cresol, tech., 50% below 204°C., dry above 207°C., wide distillation range, non-ret. dms., c.l., frt. equald lb. .1625- —
l.c.l., same basis lb. .1675- —
tanks, same basis lb. .145 - —
Cresol, USP, non-ret. dms., c.l., same basis lb. .1775- —
l.c.l., same basis lb. .1825- —
tanks, same basis lb. .160 - —
m-Cresol, 95-98%, dms., c.l., works, lb. .60 —
l.c.l. works lb. .61 —
m-p-Cresol, 5-95%, 3°C., dms., c.l., frt. equald lb. .1775- —
l.c.l., same basis lb. .1825- —
tanks, same basis lb. .160 - —
2-97%, 2°C., dms., c.l., frt. equald. lb. .2175- —
l.c.l., same basis lb. .2225- —
tanks, same basis lb. .200 - —
o-Cresol, m-p, over 30°C., ret. dms., c.l., frt. equald lb. .17¾- —
l.c.l., same basis lb. .18¼- —
tanks, same basis lb. .16 —
29°C., ret. dms., c.l., frt. equald, lb. .16 - —
l.c.l., same basis lb. 16½- —
tanks, same basis lb. .15 —
25-29°C., dms., c.l., frt. equald. lb. .15¾- —
l.c.l., same basis lb. .16¼- —
tanks, same basis lb. .14 —
p-Cresol, 98% dms., c.l., dlvd lb. .50 - —
l.c.l., dlvd lb. .51 - —
tanks, dlvd lb. .49 - —
Methyl ether, cns. lb. 1.90 2.50
Crotonaldehyde, 91-93%, dms., t.c.l., works lb. .24¼ .25
Cryolite, nat., indust., bgs., c.l., works 100 lbs. 13.00 - —
l.c.l., works 100 lbs. 14.25 - —
insecticide, dealers, bgs., c.l., dlvd 100 lbs. 16.75 - —
l.c.l., dlvd 100 lbs. 17.75 - —
Cube root, powd., 5% rotenone, bgs., c.l., t.l., works lb. .27 - .30
l.c.l., works lb. .28 - .31½
Cubeb berries, XX, NF, bgs lb. .60 - .65
powd., cs lb. .75 - .80
Cumene, dms., c.l., works lb. .12 —
l.c.l. works lb. .14 - —
tanks, works lb. .11 —
Cumin seed, Iranian, bgs lb. .15½- .16
Turkish, bgs. lb. .14½- .15
Cutch extract, 55% tannin, bgs., ex dock, duty extra lb. 08½ —
Cyanamide, fertilizer mixing grades, 21% N, gran., bgs., Niagara Falls, Ont., contract ton. 55.00 - —
pulv., 21% N, bgs., works, unit-ton 2.75 - —
indust. grade, bgs., c.l., works ton. 75.00 - —
t.c.l., bgs., works ton. 96.00 - —
6-16 mesh, dms., c.l., works ton. 120.00 - —
l.c.l., works ton. 140.00 - —
Cyclohexane, 99%, tech., dms., c.l., works gal. .70 - —
l.c.l., works gal. .72 - —
tanks, works gal. .55 - —
Cyclohexanol, tech., dms., c.l., works, frt. alld., E lb. .28½- .37¾
l.c.l. works, same basis lb. .30 - .38¼
tanks, works, same basis lb. .27 .36¼
Cyclohexanone, tech., dms., c.l., works lb. .33½- —
l.c.l., works lb. .35 - —
tanks, works lb. .32 - —
Cyclohexene, min. 98%, b.r. 82.5°C-85°C, 360-lb. dms., c.l., works lb. .55 - —
l.c.l., same basis lb. .60 - —
tanks, same basis lb. .52 - —
Cyclohexylamine, dms., c.l., works, lb. .46½- —
l.c.l., works lb. .46½- —
tanks, works lb. .45 - —
Cyclopropane, CP, 2-lb. cyls., works, cyl. 48.00 - —
6 oz. cyls., works cyl. 12.00 - —
USP, hospitals, cyls., 40-gal. lots, gal. .38 - —
100-gal. lots gal. .37 - —
200-gal. lots gal. .36 - —

D

2-4-D, tech., dms., c.l., works, frt. equald lb. .37 - —
l.c.l., same basis lb. .42 - .46
Butyl ester, dms., c.l., works, lb. .40 - —
l.c.l., same basis lb. .45 - .49
tanks, same basis lb. .39 - —
Isopropyl ester, dms., c.l., works, lb. .40 - —
l.c.l., works lb. .45 - .49
tanks, works lb. .39 - —
Dandelion root, bls lb. .35 .40
DDD, tech., flake, grd., fib., dms., c.l., works lb. .45 - —
t.c.l., works lb. .46 - —
DDT, powder, bgs., c.l., works, frt. equald lb. .23 - .27
smaller lots, same basis lb. .25 - .26¾
fib., dms., c.l., same basis lb. .24 - .28
smaller lots, same basis lb. .26 - .27¾
l-Decanol, tech., dms., c.l., dlvd lb. .41 - —
l.c.l., dlvd. lb. .43 - —
tanks, dlvd. lb. .38½- —
Deertongue leaves, bls lb. .45 - —
Defluorinated phosphate, feed grade, 13% P, paper bgs., c.l., t.l., works ton. 49.50 - —
14½% P, paper bgs., c.l., t.l., works ton. 48.00 - —
17%P, paper bgs., c.l., t.l., works ton. 56.00 - —
18% P, paper bgs., c.l., t.l., works ton. 62.10 - —
Degras, common, bbls lb. .11 - .12
neutral, less 2% f.f.a., bbls lb. .21 - .22
over 2% f.f.a., bbls lb. .20 - .21
d-Desoxyephedrine hydrochloride bots. 24.00 -25.00
dl, bots lb. 6.50 - —
Dextrin, corn, gum, paper, bgs., c.l. 100 lbs. 9.18 - —
l.c.l. 100 lbs. 9.33 - —
canary, light paper bgs., c.l. 100 lbs. 8.92 - —
l.c.l. 100 lbs. 9.07 - —
dark paper bgs., c.l. 100 lbs. 9.02 - —
white paper bgs., c.l. 100 lbs. 8.76 - —
l.c.l. 100 lbs. 8.91 - —
Corn dextrin in cotton bgs. 15c. per 100 lbs. higher.
Potato, imported, bgs lb. .10½- .11
Dextrose, USP, dms lb. .17¾- —
Diacetone (see Alcohol diacetone).
Diacetyl, flavor grade, bots lb. 4.50 - 5.50
Di-sec-amyl phenol, dms., c.l., works lb. .30¾- —
l.c.l., works lb. .32¼- —
tanks, works lb. .28¾- —
Di-tert-amyl phenol, dms., c.l., works lb. .30¾- —
l.c.l., works lb. .32¼- —
tanks, works lb. .28¾- —
o-Dianisidine fib. dms lb. 2.00 - —
Dibenzyl sebacate, dms., c.l., works, lb. .89¾- .90
l.c.l., same basis lb. .90¼- .91
tanks, same basis lb. .88 - —
p-Dibromobenzene bgs., 500-lb. lots, lb. .55 - —
Dibutyl phthalate, dms., c.l., dlvd, E lb. .32 - —
l.c.l., same basis lb. .33 - —
tanks, same basis lb. .30 - —
Sebacate, dms., c.l., works lb. .66 - —
l.c.l., works lb. .66½- .67
tanks, works, dlvd lb. .64 - .64½
Tartrate, dms., works, frt. alld. lb. .64 - —

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Dibutylamine, dms., c.l., dlvd	lb.	.55	—
l.c.l., same basis	lb.	.56	—
tanks, same basis	lb.	.53	—
2,6-Di-tert-butyl-p-cresol, dms., c.l., dlvd	lb.	.91	—
l.c.l., dlvd.	lb.	.95	—
Dicapryl phthalate, dms., c.l., dlvd.,	lb.	.30½-	.31½
l.c.l., dlvd	lb.	.31½-	.32½
tanks, dlvd	lb.	.29½-	—
Sebacate, dms., c.l., works	lb.	.63	—
l.c.l., works	lb.	.63½-	.64
tanks, works	lb.	.61	—
2,5-Dichloroaniline, dms., works	lb.	.83	—
o-Dichlorobenzene, dms. c.l., frt. alld. E	lb.	.12¼-	—
l.c.l., same basis	lb.	.13¼-	—
tanks, same basis	lb.	.10¾-	—
p-Dichlorobenzene, dms., c.l., frt, alld. E	lb.	.14½-	—
l.c.l., same basis	lb.	.17	—
1,4-Dichlorobutane, dms., c.l. or t.l., works	lb.	.33½-	—
l.c.l., or l.t.l., works	lb.	.34	—
tanks, works	lb.	.32	—
Dichlorodiphenyltrichloroethane (see DDT).			
Dichloropentanes, dist., dms., c.l., works	lb.	.05	—
l.c.l., works	lb.	.06	—
tanks, works	lb.	.03	—
Dicyclohexylamine, dms., c.l., works.	lb.	.51	—
l.c.l., works	lb.	.51¾-	—
tanks, works	lb.	.49½-	—
Dicyclohexyl phthalate, fib. dms., c.l., works, frt. alld	lb.	.58¼-	.59
l.c.l. same basis	lb.	.59¼-	.60
Didecyl phthalate, dms., c.l., works.	lb.	.33½-	—
l.c.l., same basis	lb.	.34½-	—
tanks, same basis	lb.	.31½-	—
Dieldrin, dms., frt. alld	lb.	1.80	—
l.c.l., frt. alld	lb.	1.85	—
Diethanolamine, dms., c.l., dlvd. E.	lb.	.26½-	—
l.c.l., same basis	lb.	.27½-	—
tanks, same basis	lb.	.24½-	—
Diethyl carbonate, dms., c.l., frt. alld	lb.	.47	—
l.c.l. same basis	lb.	.48	—
tanks, same basis	lb.	.45	—
Ethanolamines, dms., c.l., dlvd.	lb.	.69	—
l.c.l. dlvd	lb.	.70	—
tanks, dlvd	lb	.67	—
Oxalate, dms., c.l., frt. alld	lb.	.42	—
l.c.l. same basis	lb.	.43	.45
tanks same basis	lb.	.40	—
Phthalate, dms., c.l., dlvd	lb.	.29	—
l.c.l., dlvd	lb.	.30	—
tanks, dlvd	lb.	.27	—
Sulfate, dms., c.l., works	lb.	.18¾-	—
l.c.l., works	lb.	.19¼-	—
tanks, works	lb.	.17	—
Diethylamine, dms., c.l., dlvd. E	lb.	.50½-	—
l.c.l., same basis	lb.	.51½-	—
tanks, same basis	lb.	.48½-	—
N,N-Diethylaniline, dms., c.l., frt. alld	lb.	.51	—
l.c.l., same basis	lb.	.52	—
tanks, same basis	lb.	.50	—
Di-2-ethylhexyl adipate (see Dioctyl adipate).			
Phthalate (see Dioctyl phthalate).			
Diethylene glycol, dms., c.l., dlvd. E.	lb.	.17¼-	—
l.c.l., same basis	lb.	.18¼-	—
tanks, same basis	lb.	.15¼-	—
Boriborate, dms. l.c.l.	lb.	.31	—
Diethyl ether, dms., c.l., works.	lb.	.47½-	—
l.c.l., works	lb.	.48	—
Monobutyl ether, dms., c.l., dlvd. E	lb.	.30¼-	—
l.c.l., dlvd. E	lb.	.31¼-	—
tanks, dlvd. E	lb.	.28¼-	—
Acetate, dms., c.l., wcrks.	lb.	.30	—
l.c.l. works	lb.	.30½-	—
tanks, dlvd. E	lb.	.28¼-	—
Monoethyl ether, dms., c.l., dlvd.	lb.	.22	—
l.c.l., dlvd	lb.	.23	—
tanks, dlvd	lb.	.20	—
acetate, dms., c.l., works	lb.	.26¾-	—
l.c.l. works	lb.	.27¼-	—
tanks, dlvd. E	lb.	.25¼-	—
Monomethyl ether, dms., c.l., dlvd	lb.	.20½-	—
l.c.l., dlvd	lb.	.21½-	—
tanks, dlvd	lb.	.18½-	—
Diethylenetriamine, dms., c.l., dlvd. E	lb.	.43½-	—
l.c.l., dlvd. E	lb.	.44½-	—
tanks, dlvd E	lb.	.41½-	—
Diethylstilbestrol, USP, bots., 10-kilo lots	kilo.	100.00	-147.50
	kilo.	110.00	-152.50
Digitalis leaves, USP, dom., dms.,	lb.	.90	1.10
Digitoxin, USP, bots	gram.	5.00	5.50
Diglycol laurate, dms	lb.	.35	.38
Stearate, dms, ton lots	lb.	.25	—
Dihexyl sebacate, dms., c.l., works.	lb.	.64	—
l.c.l., works	lb.	.64½-	.65
tanks, works	lb.	.62	—
Dihydrazine sulfate, dms., works.	lb.	1.10	1.25
Dihydrostreptomycin hydrochloride, bulk	gram.	.07	.0745
Sulfate, bulk	gram.	.07	.0745
1,2-Dihydroxy anthraquinone, dms., works	lb.	2.75	—
2,2-Dihydroxy-5-5-dichloro-diphenyl-methane, pure, dms	lb.	2.55	—
tech., dms	lb.	1.09	—
Di-isobutyl ketone, dms., c.l., dlvd.	lb.	.16	—
l.c.l., dlvd	lb.	.17	—
tanks, dlvd	lb.	.14	—
Phthalate, dms., c.l., dlvd. E	lb.	.31	—
l.c.l., same basis	lb.	.32	—
tanks, same basis	lb.	.29	—
Di-isobutylene dms., c.l., dlvd. E	lb.	.10	—
l.c.l., dlvd E	lb.	.11	—
tanks, dlvd E	lb.	.08	—
Di-iso-octyl pntnalate, dms., c.l., dlvd	lb.	.32½-	—
l.c.l., same basis	lb.	.33½-	—
tanks, same basis	lb.	.30½-	—
Sebacate, dms., c.l., works	lb.	.63	—
l.c.l., works	lb.	.63½-	.64
tanks, works	lb.	.61	—
Di-isopropanolamine, dms., c.l., dlvd.	lb.	.22¾-	—
l.c.l., same basis	lb.	.23¾-	—
tanks, same basis	lb.	.20¾-	—
Di-isopropylamine dms., c.l., dlvd. E. of Rockies	lb.	.50	—
l.c.l., same basis	lb.	.51	—
tanks, same basis	lb.	.48	—
Dillseed, dewhiskered, bgs	lb.	.10	.10¼
nat., bgs.	lb.	.09	—
Dimethyl anthranilate, cns.	lb.	5.25	5.75
Chloroacetal, dms., c.l., works.	lb.	.45	—
l.c.l., works	lb.	.50	—
tanks, works	lb.	.40	—
Ethanolamines, anhyd., dms., c.l., dlvd	lb.	1.22	—
l.c.l., dlvd.	lb.	1.23	—
tanks, dlvd.	lb.	1.20	—
70%, dms., c.l., dlvd., 100% basis, contained amines	lb.	.68	—
l.c.l., dlvd., 100% basis	lb.	.69	—
tanks, dlvd. 100% basis	lb.	.66	—
Hydroquinone, dms.	lb.	1.70	2.75
Phthalate, dms., c.l., works	lb.	.29½-	—
l.c.l., works	lb.	.30½-	—
tanks, works	lb.	.27½-	—
Sebacate, dms., c.l., works	lb.	1.27	—
l.c.l., dlvd.	lb.	1.28	—
tanks, works	lb.	1.25	—
Sulfate, 55-gal. ret. dms., c.l., works	lb.	.15	—
l.c.l., works	lb	.16	—
10-gal. ret. dms., l.c.l., works.	lb.	.16½-	—
Dimethylamine, 25% soln., dms., c.l., frt. equald	lb.	.42	—
l.c.l., frt. equald	lb.	.42½-	—
tanks, frt. equald	lb.	.33	—
40% soln., dms., c.l., frt. equald	lb.	.39	—
l.c.l., frt. equald	lb.	.39½-	—
tanks, frt. equald	lb.	.33	—
N,N-Dimethylaniline, dms., c.l., frt. alld	lb.	.29¼-	—
l.c.l., frt. alld	lb.	.30½-	—
tanks, frt. alld	lb.	.28½-	—
N,N-Dimethylformamide dms., works.	lb.	.34	.39
tanks, works	lb.	.33	—
2,4-Dinitroaniline, dms., 1,000-lb. lots, frt. equald	lb.	.68	—
smaller lots	lb.	.71	—
m-Dinitrobenzene, 85°C., dms	lb.	.22	—
89°C., dms	lb.	.24	—
2,4-Dinitrochlorobenzene, crystalizing at 46½°C., dms., c.l., frt. alld. E	lb.	.15¼-	—
l.c.l., frt. alld E	lb.	.15¾-	—
tanks, frt. alld E	lb.	.15	—
crystalizing at 48°C., dms., c.l., frt. alld. E	lb.	.20¼-	—
l.c.l., frt. alld. E	lb.	.20¾-	—
tanks, frt. alld. E	lb.	.20	—
2,4-Dinitrophenol, bbls	lb.	.37	—
2,4-Dinitrotoluene, oily, dms	lb.	.11	—
refd., 63°C., dms	lb.	.23	—
Dioctyl adipate, dms., c.l., works.	lb.	.44½-	—
l.c.l., works	lb.	.45½-	—
tanks, works	lb.	.42½-	—
Phthalate, dms., c.l., frt. alld	lb.	.32½-	—
l.c.l., frt. alld	lb.	.33½-	—
tanks, frt. alld	lb.	.30½-	—
Sebacate, dms., c.l., works,	lb.	.60	—
l.c.l., works	lb.	.60½-	.61
tanks, works, dlvd	lb.	.58	.58½
Di-o-tolylguanidine, dms., ton lots, frt. alld	lb.	.60	—
smaller lots, frt. alld	lb.	.61	—
1,4-Dioxane, dms., c.l., works	lb.	.28¾-	—
l.c.l., same basis	lb.	.29¼-	—
tanks, same basis	lb.	.27	—
Dip oil (see Tar acid oil).			
Dipentaerythritol, bgs., l.c.l., works.	lb.	.35	—
Dipentene, dest-dist., dms., works	gal.	.47	—
l.c.l., works	gal.	.52	—
ex-whse.	gal.	.62	—
steam-dist., dms., c.l., works, South	gal.	.59	—
dlvd. N. Y.	gal.	.67	—
tanks, works, South	gal.	.45	—
Diphenyl, bbls., c.l., works	lb.	.15	—
l.c.l., works	lb.	.16	—
Diphenyl in bags ¼c. lower.			
Oxide, perfume grade, cns	lb.	.54	.61
Phthalate, dms., c.l., works	lb.	.51¾-	—
l.c.l., works	lb.	.53¾-	—
Diphenylguanidine, bgs., dms., ton lots, frt. alld	lb.	.50	—
smaller lots, frt. alld	lb.	.51	—
Diphenylhydantoin-sodium USP,	dms	lb. 5.00	5.60
Dipropylene glycol, dms., c.l., frt. alld	lb.	.17¼-	—
l.c.l., same basis	lb.	.18¼-	—
tanks, same basis	lb.	.15¼-	—
Monomethyl ether, dms., c.l., dlvd. E	lb.	.20	—
l.c.l., same basis	lb.	.21	—
tanks, same basis	lb.	.18½-	—
Divi-divi, 45% tannin, bgs., bls., c.l., U.S. ports, exdock	ton	70.00	72.00
Divinylbenzene, 20-25% dms., c.l., works, frt. equald	lb.	.20	—
l.c.l., same basis	lb.	.21	—
tanks, same basis	lb.	.19	—
50-60%, dms., c.l., works, 100% basis	lb	1.00	—
l.c.l., works, 100% basis	lb.	1.05	—
Dodecylbenzene, dms., c.l., frt. alld	lb.	.14	—
l.c.l., same basis	lb.	.15	—
tanks, same basis	lb.	.12	—
Dyes, coaltar, certified colors for food, drugs and cosmetics, 500-lb. and 1-lb. lots, dlvd:—			
Blue, FD & C, No. 1	lb.	15.65	-17.60
No. 2	lb.	15.65	-17.60
Green, FD & C, No. 1	lb.	15.65	-17.60
No. 2	lb.	19.60	-22.85
No. 3	lb.	21.30	-35.90
Red, FD & C, No. 1, cns	lb.	5.90	- 7.85
No. 2	lb.	3.30	- 4.10
No. 3	lb.	19.60	-22.85
No. 4	lb.	5.55	- 7.50
Violet, FD & C, No. 1, cns	lb.	15.65	-17.60
Yellow, FD & C, No. 1, cns	lb.	9.15	-11.05
No. 5	lb.	3.30	- 4.10
No. 6	lb.	3.30	- 4.10
Dyes, coaltar, certified colors for drugs and cosmetics, 200 lb. and 1 lb. lots, dlvd:—			
Flack, D&C, No. 1	lb.	10.50	-10.95
Brown, D&C, No. 1	lb.	15.65	-16.10
Green, D&C, No. 5	lb.	15.65	-16.10
No. 6	lb.	15.65	-16.10
No. 7	lb.	14.35	-14.80

Does chelation actually represent a new kind of chemistry? Are the possibilities as exciting as many seem to think? This series endeavors to answer these—and many other—pertinent questions on this fascinating subject. It is hoped chemists, engineers and purchasing agents alike will find these answers helpful. Now on to . . .

DOW

The Chemistry of Chelation: Part II

Versene and Versenol Series · Descriptions and Uses
A measure of Value · A Suggestion

To review in capsule form: Part I introduced chelation, offered examples of typical chemical reactions, applications, and discussed future possibilities. You will remember that a chelating agent is defined as a chemical which surrounds metallic ions with a multiple-ring structure that keeps the metal chemically inactive and holds it in solution. The applications in industry are many—and new ones are being found almost daily. That, of course, brings us to another consideration: different chelating agents for different uses.

VERSENE® AND VERSENOL®

Chelating agents are commercially available from Dow as 15 different products—all based on aminocarboxylic acid derivatives. Among these, wide spectrum performance is shown by two series of products. The Versene series of products (Versene® 67, Versene 100, Versene Powder, Versene Beads, Versene 9 and Versene Acid) is based on EDTA* and the sodium salts of this material. The Versenol series (Versenol® 120, Versenol Powder and Versenol Beads) consists of various physical forms of Na_3 HEDTA**. The Versene series, except for Fe+++ in the alkaline pH range, is generally the stronger series of the two (more completely chelates the last traces of metal). The Versenol series is notably stronger for Fe+++ in the mildly alkaline pH range and is usually cheaper on a performance basis if the consumer can tolerate the weaker chelate structure. Versene is the strongest, most stable commercially available chelating agent. It is the one with the greatest number of successful applications.

DESCRIPTIONS AND USES

Here are three Dow chelating agents together with their descriptions and uses:

Versene 100 is a concentrated aqueous solution of a technical grade of the tetrasodium salt of EDTA . . . widely used in textile processing, detergent formulations and metal cleaning.

Versene Acid is a dry form of EDTA technical. It is used in many operations as a raw material for the preparation of various derivatives, such as metal chelates, salts (K, NH_4), esters and many others.

*Ethylenediaminetetra acetic acid
**Trisodium salt of N-hydroxyethylethylenediaminetriacetic acid

Versenol 120 is a concentrated aqueous solution of a technical grade of Na_3 HEDTA. It is also very valuable to detergent, textile and metal-cleaning processes.

Naturally these three specific agents are not the answer to *every* problem. That's the reason for the many other Versene products, to be discussed in Part III.

A MEASURE OF VALUE

A measure of the broad performance capacity of a chelating agent can be obtained from its *chelation value*—determined on a reference metal. Calcium is used as the reference metal under the standard test proceedure accepted by the industry. Dow prefers this "performance basis". It specifies more clearly what chelating agents *actually accomplish* than such terms as "% solids" and "% active". Consequently, the "100" in Versene 100 means that one gram of this product will chelate 100 milligrams of calcium carbonate in accordance with the standard test procedure. By the same token, one gram of Versene 67 will chelate 67 milligrams, and so on.

A SUGGESTION

Two closing thoughts: Dow wants to help in any way possible to further develop the applications for chelation. Also important, Dow would like to hear from *you*—your thoughts, reactions, suggestions. Please inquire about any problems or ideas you may have. Information or actual technical assistance will be forthcoming promptly. Write, on your company letterhead, to Technical Service and Development, Dept. SC 912P-1 THE DOW CHEMICAL COMPANY, Midland, Michigan.

THE NEXT TWO TOPICS IN THIS SERIES

PART III *July August September* — Specific chelating agents for specific applications (agent for iron control depends on pH—Versene Fe-3 Specific® for iron and transition metals on the alkaline side, Versene T® for iron in presence of free caustic—other solutions to special problems).

PART IV *October* — Applications in specific industries (formulation of alkaline cleansers—stabilization of hydrogen peroxide and Kier boiling in textile processing—uniform control of trace metal catalysts in polymerization of synthetic rubber—other industrial applications).

you can depend on DOW CHEMICALS DOW

Dyes, Coaltar—Ethylbenzene

Dyes, coaltar, certified colors for drugs and cosmetics, 200 lb. and 1 lb lots, dlvd:—

Orange, D&C, No. 3	lb.	10.50	-10 95
No. 4	lb.	9.60	-20.05
No. 5	lb.	5.25	5 70
No. 17	lb.	10.50	10 95
No. 18	lb.	23.55	-24 00
No. 19	lb.	15.00	-15.45
No. 21	lb.	3.10	3.60
No. 22	lb.	10.50	-10.95
No. 23	lb.	24.20	-24.65
No. 33	lb.	17.00	-17 45
Violet., D&C, No. 2	lb.	15.65	-16.10
Yellow D&C, No. 7	lb.	10.50	-10 95
No. 8	lb.	10.50	-10 95
No. 10	lb.	13.05	-13 50
No. 11	lb.	13.05	13 50

Dyes, coaltar, certified colors for drugs and cosmetics, external use, 1-lb lots, works, 25-50 lb. lots dlvd:—

Blue, Ext., D&C, No. 1, cns	lb.	15.65	-16.10
Green, Ext., D&C, No. 1, cns	lb.	15.65	-16 10
Red, Ext., D&C, No. 1, cns	lb.	13.05	-13 50
Yellow, Ext., D&C, No. 1, cns	lb.	10.50	-10.95

Dyes, coaltar, for general use in cloth dyeing (numbers are those of the Colour Index scale or prototype), contract, dlvd. No.

20	Chrysoidine Y, dustless	lb.	.89	- —
27	Fast light, orange 2G	lb.	1.09	- —
31	Phloxine 2G	lb.	89	- —
36	Yellow 2G	lb.	1.00	- —
40	Orange R extra, conc	lb.	1.29	- —
57	Fuchsine 6B	lb.	1.31	- —

Dyes, coaltar, for general use in cloth dyeing (numbers are those of the Colour Index scale or prototype), contract, dlvd. No.

79	Scarlet 2R	lb.	.98	- —
151	Orange AD	lb.	.67	- —
161	Orange RR	lb.	.80	- —
176	Fast red A	lb.	1.18	- —
179	Rubine XX, conc	lb.	1.25	- —
180	Blue F4B	lb.	1.11	- —
561	Brown B	lb.	2.45	- —
581	Black EB, 200%	lb.	1.13	- —
185	Brilliant scarlet 3RU, conc.	lb.	1.03	- —
202	Chrome blue black R, conc.	lb.	.91	- —
203	Chrome black T	lb.	.94	- —
208	Fast blue SR	lb.	1.10	- —
216	Chrome red B	lb.	.92	- —
234	Brown Y	lb.	1.08	- —
246	Blue black, extra, conc	lb.	1.16	- —
275	Milling red 3R, conc	lb.	1.62	- —
289	Navy blue 3R, conc	lb.	1 44	- —
299	Black F, conc	lb.	1.86	- —
304	Neutral black 2B, conc.	lb.	2.43	- —
326	Fast scarlet 4BNC	lb.	1.80	- —
332	Bismark brown RX, conc., dustless	lb.	1.16	- —
365	Brilliant yellow, conc	lb	3.11	- —
382	Scarlet B	lb	2.20	- —
401	Diazo black BHD	lb.	79	- —
406	Blue 2B, extra conc	lb	1.30	- —
419	Red FC	lb	1.23	- —
420	Brown M	lb	1.19	- —
448	Red 4BX, conc	lb.	1.43	- —

Dyes, coaltar, for general use in cloth dyeing (numbers are those of the Colour Index scale or prototype), contract, dlvd.

518	Diamine sky blue FF, extra, conc	lb.	1.65	- —
593	Green BY, conc	lb.	.87	- —
596	Yellow Brown K, extra	lb.	1.08	- —
620	Yellow 2G	lb.	1.11	- —
639	Fast Yellow GG	lb.	1.97	- —
640	Yellow XX	lb.	1.95	- —
655	Yellow OX	lb	2.24	- —
657	Green V	lb	2.31	- —
662	Brilliant green G	lb.	3.07	- —
667	Milling green 6B, conc	lb.	4.05	- —
671	Blue EG	lb.	1.68	- —
681	Crystal violet powder	lb.	2.15	- —
698	Violet 6BN Powder	lb.	1.91	- —
720	Brilliant blue BBG	lb.	2.07	- —
729	Blue B, conc	lb.	3.06	- —
749	Red BX	lb.	87	- —
800	Chinoline yellow ZSS	lb.	2.67	- —
850	Induline base ZM	lb.	1.07	- —
850	Induline base Z2R	lb.	1.07	- —
814	Yellow NN, conc	lb.	3.11	- —
841	Safranine GF, extra, conc.	lb.	3.48	- —
865	Nigrosine J	lb.	4.76	- —
922	Blue GXX	lb.	1.88	- —
978	Black GXCF, conc	lb.	.32	- —
1034	Alizarine red SC	lb.	2.85	- —
1054	Alizarine blue SAPX	lb.	3.20	- —
1078	Alizarine green CG, extra.	lb.	2.99	- —
1085	Alizarine blue black B	lb.	2.56	- —
1096	Golden orange GFD, single paste	lb.	2.19	- —
1099	Dark blue BO, single paste.	lb.	1.93	- —
1101	Jade green N, double paste.	lb.	1.10	- —
1106	Blue RS, double paste	lb	3.26	- —
1113	Blue BLFD, double paste.	lb.	2.48	- —
1150	Olive R, single paste	lb.	1.21	- —

Dyes, coaltar, for general use in cloth dyeing (numbers are those of the Colour Index scale or prototype), contract dlvd.

1151	Brown R, single paste	lb.	1.94	- —
		lb.	.31	- —
1217	Orange RD, double powder.	lb	3.94	- —
1171	Indigo synthetic, 20% paste.			
p-4	Brown PG	lb.	2.54	- —
p-14	Brown EB	lb.	1.83	- —
p-24	Gray L	lb.	1.76	- —
p-80	Diazo brilliant scarlet ROAD	lb	3.07	- —
p-202	Diazo black VJ, conc	lb	2 10	- —
p-244	Brilliant scarlet BN	lb.	1.44	- —
p-813	Naphthol SWF	lb.	2.03	- —

Dyes, coaltar, oil soluble, 100 lb. dms., dlvd.

24	Oil orange Z-7078	lb.	1.06	- —
73	Oil scarlet ZBL	lb.	1.44	- —

Dyes, coaltar, for stains, oil soluble, 100-lb. dms., sellers' works,

1073	Oil violet ZIRS	lb.	6.81	- —
1078	Alizarine cyanine green base Z	lb.	6.13	- —
1080	Oil violet special Z	lb.	6.81	- —
	Oil black ZBC	lb.	4.46	- —
	Oil black ZBD	lb.	3.03	- —
	Oil black ZHH	lb.	4.61	- —
	Oil black ZMM	lb.	6.52	- —
	Oil blue ZN	lb.	8.02	- —
	Oil blue ZV	lb.	4.95	- —
	Oil orange ZMG	lb.	1.32	- —
	Oil red Z-1700	lb.	1.49	- —
	Oil yellow ZG, conc	lb.	6.33	- —

Dyes, coaltar, spirit soluble, 100 lb. dms., dlvd.

p-517	Spirit yellow ZR	lb	4.62	- —
p-520	Spirit orange ZR, conc	lb	5.87	- —
	Spirit black ZRB	lb	2.95	- —
	Spirit brown ZG	lb	5.30	- —
	Spirit red ZB, conc	lb.	6.41	- —

E

Echinacea root, bls	lb.	1.10	- —
Egg albumin (see Albumin).			
Yolk, dried, dom., bbls	lb.	1.07	- 1.09
tanners, bbls	lb.	.06	- .06½
Elm bark, grinding, bls	lb.	.30	- .32
powd., bbls., bxs	lb.	.45	- —
select, bundles	lb.	.75	- —
Emetine hydrochloride, USP. bots	oz.	42.50	-44.00
Endrin, tech., dms., dlvd., 100% basis	lb.	3.75	- —
Ephedrine, syn., USP, anhyd., bots., 100-oz. lots	oz.	.98	1.00
hydrous, bots., 100-oz. lots	oz.	.92	- —
Hydrochloride, tins, 100-oz. lots.	oz.	.75	- —
Sulfate, cryst., tins, 100-oz. lots.	oz.	.72	- —
powd., tins, 100-oz. lots	oz.	.73	- —
Epichlorohydrin, dms., c.l., dlvd	lb.	.35	- —
l.c.l., dlvd	lb.	.36	- —
tanks, dlvd	lb.	.33	- —
Epinephrine, syn., USP. bots., 100-gram lots	gram.	.60	- —
Epsom salt (see Magnesium sulfate).			
Ergosterol, unirradiated. cryst	kilo.	150 00	- —
Ergot, NF, dms., tin-lined	lb.	2.00	- —
Eserine salicylate, bots	oz.	84.00	- —
Sulfate. bots	oz.	84.00	- —
Ether (see specific product).			
Ethyl acetate, nat., ferment., 85-88%, dms., c.l., frt. alld	lb.	.14	- —
l.c.l., frt. alld	lb.	.15	- —
tanks, frt. alld	lb.	.11½	- —
95-98%, dms., c.l., frt. alld.	lb.	.14¼	- —
l.c.l., frt. alld	lb.	.15¼	- —
tanks, frt. alld	lb.	.11¾	- —
99%, dms., c.l., frt. alld	lb.	.14½	- —
l.c.l., frt. alld	lb.	.13½	- —
tanks, frt. alld	lb.	.12	- —
syn., 85-88%, dms., c.l., dlvd.	lb.	.14	- —
l.c.l., dlvd	lb.	.15	- —
tanks, dlvd	lb.	.11½	- —
95-98%, dms., c.l., dlvd	lb.	.14¼	- —
l.c.l., dlvd	lb.	.15¼	- —
tanks, dlvd	lb.	.11¾	- —
99%, dms., c.l., dlvd	lb.	.14½	- —
l.c.l., dlvd	lb.	.15½	- —
tanks, dlvd	lb.	.12	- —
Acetoacetate, dms., c.l., dlvd	lb.	.58	- —
l.c.l., dlvd	lb.	.59	- —
tanks, dlvd	lb.	.56	- —
Acrylate, dms., c.l., t.l., dlvd	lb.	.36	- —
l.t.l., dlvd	lb.	.37	- —
tanks, dlvd	lb.	.34	- —
Aminobenzoate, USP (see Benzocaine).			
Bromide, tech., 98%, dms., c.l., frt. alld. E	lb.	.41	- .43
l.c.l., frt. alld. E	lb.	.43	- .45
Butyl ketone, dms, c.l., works	lb.	.35½	- —
l.c.l., works	lb.	.36	- —
tanks, works	lb.	.34	- —
Butyrate, works	lb	.80	- 1.02
Carbamate (see Urethane).			
Cellulose, vis. 7 cps., bgs., 5,000-lb. lots or more, works	lb.	.70	- —
smaller lots, works	lb.	.72	- .80
vis. 10, 20, 50, 100, 150 cps., bgs., 2,000-lb. lots or more, works	lb.	.65	- .70
smaller lots, works	lb.	.67	- .81
Chloride, tech., cyl., works		.20	- .22
dms., works	lb.	.18	- .20
tanks, works	lb.	10	- —
Cinnamate, cns	lb.	2.71	- 3.45
Ether, absolute, ACS, dms	lb.	.27	- —
anesthesia, USP, hospitals, 1-lb. cns	lb.	1.01	- —
½-lb. cns	lb.	1.11	- —
¼-lb. cns	lb.	1.21	- —
indust., c.l., dlvd	lb.	.12	- —
l.c.l., dlvd. E	lb.	.13	- —
tanks, dlvd. E	lb.	.10	- —
Gallate, dms., 100 to 2,000-lb. lots	lb.	3.90	- 4.40
Iodide, cbys., works	lb.	3.30	- —
Methacrylate, dms., c.l. and less than truckload, works, frt. equald	lb.	.51½	- .52
Morphine hydrochloride, USP, bots	oz.	11.85	- —
Nitrite (see Nitrous ether).			
Oenanthate, dms.	lb.	1.00	- 1.50
Oleate, dms., l.c.l., works	lb.	No prices.	
Oxalate (see Diethyl oxalate).			
Silicate dist. (see Tetraethyl orthosilicate).			
40% available SiO_2, dms., c.l., dlvd	lb.	.49	- —
l.c.l., dlvd	lb.	.50	- —
tanks, dlvd	lb.	.47	- —
Ethylethanolamines, mixed, dms., c.l., dlvd. E	lb.	.43½	- —
l.c.l., dlvd. E	lb.	.44½	- —
tanks, dlvd. E	lb.	.41½	- —
N-Ethyl-a-naphthylamine, dms., works,	lb.	1.02	- —
N-Ethyl-o-toluidide, bbls.	lb.	.88	- —
Ethylamine (see Mono, Di- or Tri-)			
N-Ethylaniline, dms., c.l., frt. alld.	lb.	.51	- —
l.c.l., frt. alld	lb.	.52	- —
tanks, frt. alld	lb.	.50	- —
Ethylbenzene, 99%, dms., c.l., or t.l., frt. equald	lb.	.17	- —
l.t.l., same basis	lb.	.18	- —
tanks, same basis	lb.	.15	- —

Looking through chemicals

An amazing 73 billion glass-packed units were sold in this country in 1954 . . . an average of 454 units for each man, woman and child. And today, glass container plants are operating at even greater capacity. Small wonder that demand for soda ash, nitrate of soda, and other glass-making chemicals is at an all-time high.

To anticipate and provide needed chemicals to supply the expanding glass industry, Olin Mathieson has a forward-looking program of *coordinated planning and production.* This assures glass manufacturers of the availability of chemical raw materials regardless of changing market conditions, new product developments, or requirements for plant expansions.

At present, a growing number of chemical consumers are coordinating their planning and production with Olin Mathieson . . . America's prime producer of basic industrial chemicals. Olin Mathieson's long experience and familiarity with the broad market picture can prove invaluable in *your* planning. Why not consult with us . . . now?

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OLIN MATHIESON CHEMICAL CORPORATION
INDUSTRIAL CHEMICALS DIVISION • BALTIMORE 3, MD.

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INORGANIC CHEMICALS: Ammonia • Bicarbonate of Soda • Carbon Dioxide • Caustic Potash • Caustic Soda • Chlorine • Hydrazine and Derivatives • Hypochlorite Products • Muriatic Acid • Nitrate of Soda • Nitric Acid • Soda Ash • Sodium Chlorite Products • Sulphate of Alumina • Sulphur (Processed) • Sulphuric Acid
ORGANIC CHEMICALS: Ethylene Oxide • Ethylene Glycols • Polyethylene Glycols • Trichlorobenzene • Ethylene Dichloride • Dichlorcethylether • Formaldehyde Methanol • Sodium Methylate • Hexamine • Ethylene Diamine • Polyamines • Ethanolamines • Polychlorobenzene • Trichlorophenol • Glycol Ether Solvents

Ethylene dichloride, dms., c.l., dlvd. lb. .10¼- —
l.c.l., same basis lb. .12¼- —
tanks, same basis lb. .09 - —
Ethylene dichloride prices W. of Rockies, 1c. per lb. higher.
Glycol, indust., dms., c.l., dlvd. E lb. .15½- —
l.c.l., same basis lb. .16½- —
tanks, same basis lb. .13½- —
Monobutyl ether, dms., c.l., dlvd. E lb. .21½- —
l.c.l., dlvd. E lb. .22½- —
tanks, dlvd. E lb. .19½- —
Monoethyl ether, dms., c.l., dlvd. E lb. .20½- —
l.c.l., dlvd. E lb. .21½- —
tanks, dlvd. E lb. .18½- —
Acetate, dms., c.l., dlvd. E lb. .19 - —
l.c.l., dlvd. E lb. .20 - —
tanks, dlvd. E lb. .17 - —
monoethyl ether, dms., c.l., dlvd. E lb. .20½- —
l.c.l., dlvd. E lb. .21½- —
tanks, dlvd. E lb. .18½- —
Acetate, dms., c.l., dlvd. E lb. .28¾- —
l.c.l., dlvd. E lb. .29¼- —
tanks, dlvd. E lb. .27 - —
Monostearate, triple pressed, dms lb. .34 - —
Oxide, dms., c.l., dlvd. E lb. .21½- —
l.c.l. dlvd. E lb. .24½- —
tanks, dlvd. E lb. .15½- —
Trichloride (see Trichloroethane).
Ethylenediamine, 85-88%, dms., c.l., dlvd. E, 100% basis lb. .46 - —
l.c.l., dlvd. E., 100% basis lb. .47 - —
tanks, dlvd. E., 100% basis lb. .44 - —
Ethylvanillin, cns., 25-lb. lots lb. 6.20 - 6.75
Eucalyptol, USP, cns., dms. lb. 1.40 - 1.50
Eugenol, USP, bots lb. 2.90 - —
Euphorbia herb, bls lb. .15 - .17

F

Feldspar, 140-200 mesh, bulk, c.l., works ton 19.50 - —
Feldspar in bags $3 per ton higher.
Fennel seed, Argentine, bgs. lb. .17½- —
Czech, medium, bgs. lb. .11½- —
Indian, light, bgs. lb. .12 - —
Roumanian, bgs. lb. .11 - —
Fenugreek seed, Indian, bgs. lb. .08½- .09
Moroccan, bgs. lb. .08½- .09
Ferric acetate, liquor, 28°, bbls., c.l., works lb. .09 - —
l.c.l., works lb. .09¾- —
soln., USP IX, cbys. lb. .16 - —
djns. lb. .17 - —
Cacodylate, NF, bots lb. 13.00 -14.00
Chloride, anhyd., tech., dms., c.l., works 100 lbs. 7.00 - —
l.c.l., works 100 lbs. 7.85 - —
indust., cryst., bbls., c.l., works. 100 lbs. 5.25 - 6.75
l.c.l., works 100 lbs. 5.75 - 7.25
42° Be, photo grade, cbys., c.l., works 100 lbs. 7.25 - 8.25
sewage grade, tanks, frt. equald, 100% basis. 100 lbs. 3.50 - —
USP, cryst., dms., works lb. .07½- .09
Citrate, gran., dms. lb. .86 - —
Hypophosphite, NF, dms. lb. 3.45 - —
Naphthenate, liq., 6% Fe., dms., frt. alld lb. .23¾- —
Oxalate, gran. dms lb. .85 - .87
Phosphate, NF, soluble, gran., pearls, cs lb. .64 - .65
Pyrophosphate, NF VII, soluble, powd., gran., pearls, dms., 10,000 lb. lots lb. .40½- —
Resinate, 6¾% Fe, dms., frt. alld lb. .29½- —
Stearate, dms., c.l., frt. alld lb. .37 - —
l.c.l., frt. alld lb. .38 - .42
Sulfate, partially hydrated, bgs., c.l., works ton 31.75 -33.75
l.c.l., works ton 34.75 -40.75
lb. .37 - —
Ferric-ammonium citrate, brown, pearls, NF, gran., dms lb. .60 - .63
green, pearls, USP XII, gran., dms lb. .60 - .63
Oxalate, fine gran., dms lb. .25½- .28½
Ferric-potassium oxalate, fine gran., dms lb. .30½- .33½
Ferric-sodium oxalate, fine gran., dms lb. .25½- .28½
Ferrous gluconate, NF, dms lb. .94 - —
Sulfate, gran., bgs., c.l., works. ton 34.50 - —
l.c.l., dlvd. Metropolitan area 100 lbs. 3.35 - 4.25
bbls., c.l., works ton 40.00 - —
bulk, c.l., works ton 27.00 - —
USP, cryst., bbls., dms lb. .09½- .10
Fir, balsam, Canada, cns gal. 32.00 - —
Oregon, bbls. gal. 4.00 - —
Fishliver oil (see Oil fishliver).
Fishmeal, dom., menhaden, 60% protein grd., bgs., Chesapeake Bay area ton 139.00 - —
Scrap, same basis ton 135.00 - —
Fleaseed (see Psyllium seed).
Formaldehyde, USP, 37% (inhibited), methanol, Zone 1, dms., c.l., dlvd. lb. .0673- —
l.c.l., works lb. .072 - .0725
tanks, dlvd lb. .04 - —
Zone 2, 12-15% methanol, dms., c.l., dlvd lb. .071 - —
tanks, dlvd lb. .043 - —
Methanol-free (uninhibited), Zone 1, tanks, dlvd lb. .0373- —
Zone 2, tanks, dlvd lb. .04 - —
Fringetree bark, bls lb. .60 - .61
Fullers' earth, bgs., c.l., Ill. mines, ton 19.00 - —
powd., insecticide grade, dried, bgs., c.l., Ga. or Fla. mines ton 17.50 - —
calcined, bgs., c.l., same basis ton 20.00 -21.75
oil-bleaching grade, 100-mesh, bgs., c.l., same basis ton 16.30 -17.00
200-mesh, bgs., c.l., same basis ton 17.50 -18.00
spent, bgs., c.l., shipt. point ton. 4.50 - 5.00
Furfural, dms., c.l., works lb. .13 - —
l.c.l., works lb. .14 - —
tanks, dlvd. E lb. .12 - —
dlvd. W lb. .13 - —
Fusel oil, refd., dms., c.l., dlvd. lb. .18 - —
l.c.l., dlvd lb. .19 - —
tanks, dlvd lb. .15½- —
Fustic extract, cryst., No. 1, bbls., l.c.l. lb. .47½- —
No. 2, bbls., l.c.l. lb. .45½- —
No. 3, bbls., l.c.l. lb. .43½- —
liq., No. 1, bbls., l.c.l. lb. .22½- —
No. 2, bbls., l.c.l. lb. 21½- —
No. 3, bbls., l.c.l. lb. .19 - —
solid, No. 1, bxs., l.c.l. lb. .45 - —

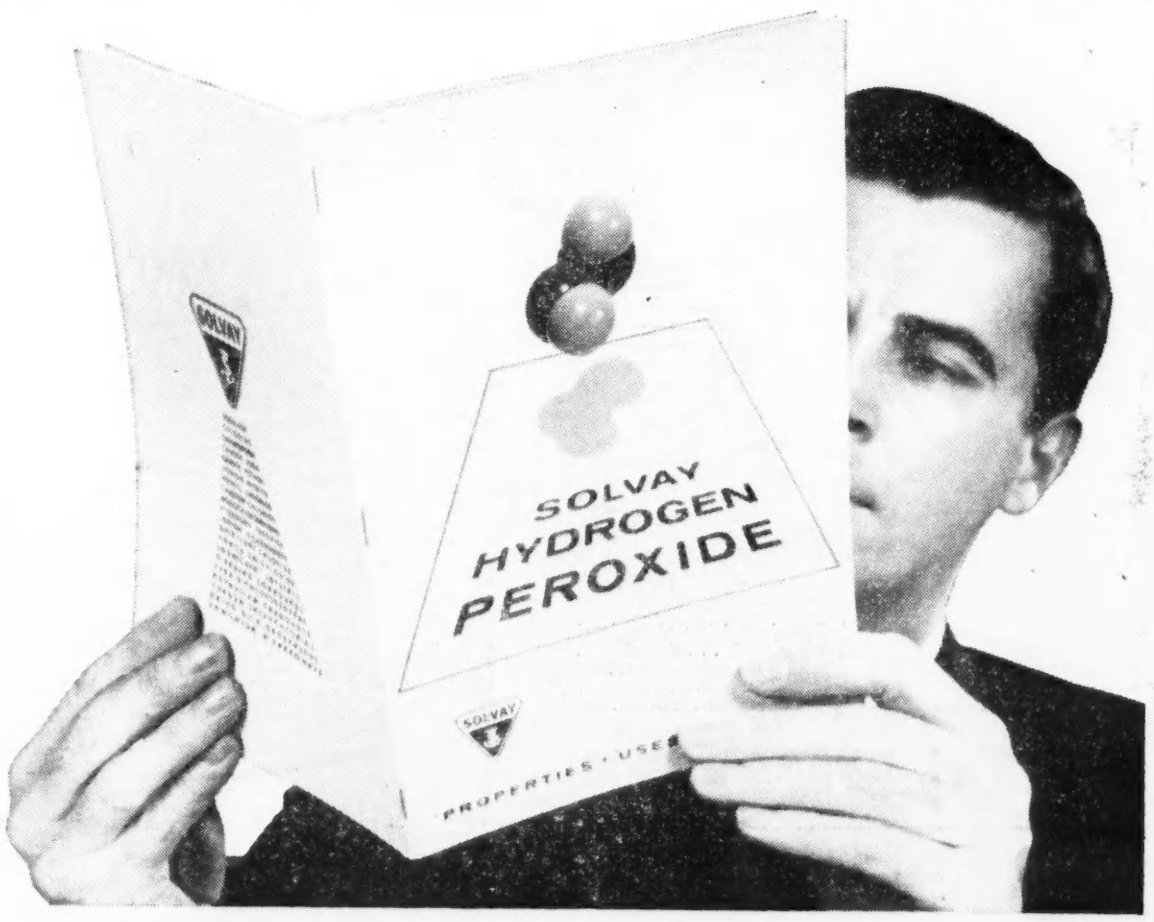
G

G salt, bbls., frt. alld, 100% basis lb. .73 - —
Gammapicoline (see g-Picoline)
Gelatin, edible, pure (pork skin), 75 Bloom test, bbls., c.l. lb. .48 - —
150 Bloom test, bbl., c.l. lb. .59 - —
200 Bloom test, bbl., c.l. lb. .66 - —
225 Bloom test, bbl., c.l. lb. .70 - —
275 Bloom test, bbl., c.l. lb. .77 - —

Gelsemium root, bls lb. .23 - .24
Gentian root, bls lb. .17 - .20
grd., bbls., bxs lb. .22 - .23
powd., bbls., bxs lb. .23 - .24
Geraniol, extra, cns., dms lb. 4.35 - 4.80
standard, cns., dms. lb. 4.20 - —
Geranyl acetate, cns lb. 4.50 - 4.80
Ginger oleoresin, NF, from African root, bots lb. 4.00 - 7.75
from Jamaican root, bots lb. 6.00 -10.25
Root, African, bls lb. .34 - .35
Cochin, bgs. lb. .31 - .32
Jamaican, No. 2, bgs lb. .60 Nom.
No. 3, bgs lb. .64 - —
Nigerian, split, bgs lb. .30 - .31
Glauber's salt, anhyd (see Sodium sulfate).
Glue, bone, extracted, dry bone, 86 jellygrams, bgs., c.l., dlvd lb. .15 - —
104 jellygrams, same basis lb. .17 - —
131 jellygrams, same basis lb. .18 - —
164 jellygrams, same basis lb. .20½- —
191 jellygrams, same basis lb. .21 - —
222 jellygrams, same basis lb. .22 - —
green, 40 jellygrams, bgs., c.l., dlvd lb. .14 - —
65 jellygrams, same basis lb. .14½- —
86 jellygrams, same basis lb. .15 - —
115 jellygrams, same basis lb. .15½- —
135 jellygrams, same basis lb. .18½- —
164 jellygrams, same basis lb. .19½- —
Bone glue, l.c.l. prices 1c. higher.
Hide, 70-94 jellygrams, bgs., c.l., dlvd lb. .15 - —
95-121, bgs., c.l., dlvd lb. .16 - —
122-149, bgs., c.l., dlvd lb. .18½- —
150-177, bgs., c.l., dlvd lb. .21 - —
178-206, bgs., c.l., dlvd lb. .23½- —
178-206 bgs., c.l., dlvd lb. .23½- —
207-236, bgs., c.l., dlvd lb. .26 - —
237-266, bgs., c.l., dlvd lb. .28 - —

Glue, hide, 267-298 jellygrams, bgs., c.l., dlvd lb. .30 - —
299-330 bgs., c.l., dlvd lb. .32 - —
331-362, bgs., c.l., dlvd lb. .34 - —
363-394, bgs., c.l., dlvd lb. .36 - —
395-427, bgs., c.l., dlvd lb. .38 - —
428-460, bgs., c.l., dlvd lb. .39 - —
461-494, bgs., c.l., dlvd lb. .40 - —
495-529, bgs., c.l., dlvd lb. .41 - —
Hide glue l.c.l. prices 1c. higher.
Glycerine, nat., crude, saponification, 88%, to refineries, tanks lb. .18½ Nom.
soaplye, 80%, tanks lb. .16½- —
refd., BP 98%, dms., c.l., dlvd. lb. .31½- —
l.c.l., dlvd lb. .32 - —
tanks, dlvd lb. .30 - —
dynamite, dms., c.l., dlvd lb. .31¼- —
l.c.l., dlvd lb. .31¾- —
tanks, dlvd lb. .29¾- —
high gravity, dms., c.l., dlvd. lb. .31¼- —
l.c.l., dlvd lb. .31¾- —
tanks, dlvd lb. .29¾- —
USP CP, 95% dms., c.l., dlvd. lb. .30½- —
l.c.l., dlvd lb. .31 - —
tanks, dlvd lb. .29 - —
yellow, dist., dms., c.l., dlvd. lb. .30½- —
l.c.l., dlvd. lb. .31 - —
syn., dms., c.l., dlvd lb. .31½- —
l.c.l., dlvd lb. .32 - —
tanks, dlvd lb. .30 - —
Glycine (see Acid aminoacetic).

Glycerol (see Gylcerine).
Glyoxal, 20% dms., c.l., works lb. .18½- —
l.c.l., works lb. .19 - —
tanks, works lb. .18 - —
Golden seal root, NF, tested, bls. lb 2.25 - 2.50
powd., bxs lb. 2.75 - 3.25
Graphite amorph., powd., bgs., fib. dms., ex whse lb. .06 - .09¼
crystalline, 88-90%, powd., bgs., fib dms., ex whse lb. .19 - .21¼
90-92%, powd., bgs., fib, dms., ex whse lb. .21 - .24½
95-97%, powd., bgs., fib, dms., ex whse lb. .29 - .31¼
flake, No. 1, 90-95%, bgs., fib, dms., ex whse lb. .29 - .31
No. 2 90-95%, bgs., fib dms., ex whse lb. .29 .31
Grease, white choice, all hog, tanks, dlvd lb. .08¾- .09
not all hog, tanks, dlvd lb. .08½- .08¾
Green, brilliant, thioflavin, toner, molybdated, PMA, kgs., works lb 5.10 - —
tungstated, PTMA, kgs., works. lb. 6.40 - —
Chrome, CP, dark, light, medium, blue content 1 to 15%, bbls., dlvd N. of Tenn. and N. C., E. of Miss., including St. Paul, Minn., Davenport, Rock Island, St. Louis lb. .40 - —



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Green, chrome, blue content, 16-30%, bbls., same basis lb. .40 - —
31-45%, bbls. same basis lb. .41 - —
45-49%, bbls., same basis lb. .44 - —
reduced color, 25%, bbls., same basis lb. .19 - —

Chrome green prices are ½c. higher, dlvd. at the following points, except as noted:—Ala., Fla., Ga., La. (Shreveport 1½c.), Miss. N. C., S. C., Tenn., Texas (Dallas, Ft. Worth, 1¼c.; El Paso, 2c.); Cedar Rapids, Des Moines, Kansas City, Lincoln, Omaha, St. Joseph; 1c. higher dlvd. Pac. coast; for Denver, Pueblo, Salt Lake City, Wichita prices are equalized with Chicago.

Chromium oxide, hydrated, bbls., fib. dms., c.l., frt. alld lb. 1.00 - 1.10
pure, bgs., c.l., frt, alld lb. .42 - —
l.c.l. same basis lb. .43 - —

Dyes (see Dyes, coaltar).

Malachite, straight, PTMA, bbls., works lb. 4.60 - —

Paris (see Paris green).

Phthalocyanine toner, bbls., works. lb. 3.95 - —
resinated, bbls lb 3.50 - —
water dispersable, bbls lb 1.71 - —

Pigment 8 kegs lb. 1.35 - —
paste, kegs lb. .38 - —

Grindelia robusta herb, bls lb. .38 - .40

Guaiacol NF, cryst., dms., tins lb 2.10 - 2.15
liq., cbys., dms lb 2.30 - 2.40

Carbonate, NF VII, dms lb 3.40 - 3.45

Gum, aloe (see Aloe).
Arabic, amber, sorts, bgs lb. .22 - .23
powd., USP, bbls lb. .27 - .28

Asafetida (see A).

Asphaltum (see A).

Benzoin, Sumatra, cs lb. .38 - .42

Camphor (see C).

Cellulose, high vis., bgs., 23,000-lb. lots or more, works, frt. alld lb. .55 - —
smaller lots, same basis lb. .57 - —

Copal, Congo, No. 1, bgs lb. .23 - —
No. 2, bgs lb. .19 - .21
No. 3, bgs lb. .16½ - .18

Manila C, bgs lb. .41 - .43
CBB, bgs lb. .37 Nom.
DBB, bgs lb. .29 - .31
DK, bgs. lb. No stocks.
dust, bgs lb. .14 - .16
MA, soft, bgs lb. .22 - .24
WS, bgs lb. No stocks.

Philippine, pale, chips, bgs lb. .24 - .26
bgs lb. .24 - .26
nubs, bgs lb. .33 - .35
seeds, bgs lb. .20 - .22
sorts, bgs lb. .22 - —
Pontianak, chips, bgs lb. .28 - —
nubs, bgs lb. .39 - .40

Dammar, Batavia, A E, cs lb. .27 - .29
dust, bgs lb. .16½ - .17½
E, bgs lb. .20 - .22

East India, batu, bold, bgs lb. .14 - .15½
nubs and chips, bgs lb. .08 - .09
black, bold, bgs lb. .14 - .16
unscraped, bgs lb. .11 - .13
nubs and chips, bgs lb. .11 - .13

Gum, dammar, East India, pale, chips, bgs. lb. .14¼ - .15½
nubs, bgs lb. .18 - .19

Siam, cs lb. .39 - —

Singapore, No. 1, bgs lb. .47 - .49
No. 2, bbls lb. .30 - .31
No. 3, bbls lb. No stocks.
dust, bgs lb. .16½ - .17
seeds, bgs lb. .20 - .22

Ester, gum-rosin type, dms., c.l., dlvd. Ill., Md., Ky., Mich., Mid-Atl. States, N. E. States, Minneapolis, N. C., Ohio, St. Louis, St. Paul, Va., W. Va lb. .14½ - .16
Wood-rosin type, dms., c.l., same basis lb. .15 - .16

Guar, food grade, bgs., c.l. lb. .40 - —
tech. grade, bgs., c.l. lb. .32 - —

Karaya, No. 1, NF, powd., bbls. lb. .55 - —
No. 2, powd., bbls. lb. .45 - —
No. 3, powd., bbls lb. .40 - —

Locust bean, powd., bgs lb. .28 - .30

Myrrh, cs lb. .55 - —

Opium (see Opium).

Olibanum siftings, cs lb. .15 - .20
tears, cs. lb. .22 - .30

Rosin (see Naval Stores, Protective Coatings Market).

Sterculia (see Gum Karaya).

Tragacanth, No. 1, ribbons, cs. lb. 3.00 - 3.50
No. 2, cs lb. 2.55 - 2.60
No. 3, cs lb. 1.75 - 1.80
powd. USP, bbls lb. 1.25 - 1.35

Gypsum, plaster of paris, 100-lb. paper, bgs., trucks, dlvd. N Y C ton 20.30 - —

Terra alba, dom., paper bgs., same basis ton 20.00 - —
works, N. Y. C ton 17.00 - —

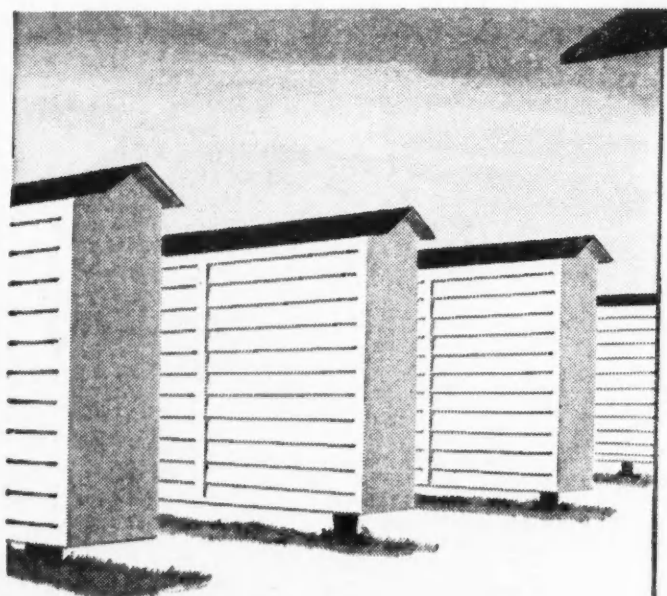
Imp. English, 100-lb. paper bags, ex dock, N. Y. C. ton 55.00 - —
ex warehouse ton 60.00 - 62.00

H

Hawthorn berries, bgs lb. .24 - .28
Heliotropin, 100-lb. lots, dms lb. 3.30 - 3.70
Hellebore root, dom., green, bls lb. .70 - .75
Helonias root, bls lb. 1.75 - 2.00
Hematine extract, cryst., No. 1, bbls., l.c.l lb. .47 - —
No. 2, bbls., l.c.l lb. .43 - —
No. 3, bbls., l.c.l lb. .41 - —
No. 4, bbls., l.c.l lb. .39 - —
No. 5, bbls., l.c.l lb. .37 - —
paste, No. 1, bbls., l.c.l lb. .20½ - —
Henbane leaves, bls lb. .35 - .40
Heptane, indust., tanks, Bayonne, N. J gal. .19 - —
Baytown, Tex gal. .14¾ - —
Borger, Tex gal. .14¾ - —
Hesperidin, purified, 25 lb. lots, f.o.b. works lb. 8.95 - —
Methylchalcone, bots., works, 50-lb. lots lb. 22.50 - —
5-lb. lots lb. 23.00 - —
1-lb lots lb. 23.50 - —
Hexachlorophene, dms lb. 1.98 - —
Hexalin (see Cyclohexanol).
Hexamethylenetetramine, tech., bgs., 20,000-lb. lots or more, Perth Amboy or N.Y.C. lb. .222 - —
1,000-19,999-lb. lots, same basis lb. .232 - —
smaller lots, same basis lb. .242 - —
fib. dms., 1,000-lb. lots or more, same basis lb. .239 - —
smaller lots, same basis lb. .249 - —
USP, dms., 500-lb lots or more, same basis lb. .40½ - —
smaller lots, same basis lb. .41½ - —
Hexane, indust., tanks, Bayonne, N. J gal. .19 - —
Baytown, Tex gal. .15½ - —
Borger, Tex gal. .13½ - —
l-Hexanol, dms., c.l., works lb. .34½ - —
l.c.l., works lb. .35 - —
tanks, works lb. .33 - —
Hexyl cinnamic aldehyde, dms lb. 4.00 - 7.50
Salicylate, dms lb. 1.75 - —
Hexylene glycol, dms., c.l., dlvd lb. .16½ - —
l.c.l., dlvd. lb. .17½ - —
tanks, dlvd lb. .14 - —
n-Hexyl methacrylate, dms., less than truckload, works lb. .71 - —
Hexylresorcinol, USP, dms., 50-lb. lots or more, dlvd lb. 14.00 - —
smaller lots, dlvd lb. 44.50 - —
Histamine diphosphate, USP, bots. kilo 400.00 - —
l-Histidine hydrochloride, NF, fib. dms., 50-kilo lots, works. kilo 80.00 - 85.00
1-5 kilo lots, works kilo 90.00 - 95.00
Homatropine hydrobromide, USP, bots oz. 8.50 - —
Methylbromide, USP, bots oz. 5.65 - —
Hoofmeal, 17-18% ammonia, bulk, c.l., Chicago unit-ton 6.50 - —
Horehound herb, bls lb. .16 - .19
Hydrastine, bots oz. 29.50 - 31.00
Hydrochloride, NF, bots oz. 29.50 - 31.00
Hydrastis (see Goldenseal).
Hydrazine, tree base, ret. dms., Lake Charles, La lb. 3.00 - 3.30
85% ret. dms., same basis lb. 1.35 - 1.55
Hydrate, 100%, ret. dms., Lake Charles, La lb. 1.60 - 1.90
Hydrocortisone acetate, bulk, bots., dms gram 4.75 - 5.00
Alcohol, bulk, bots., dms gram 4.75 - 5.00
Hydrofuramide, dms., fib. ctns., works lb. .30 - .40
Hydrogen chloride, anhyd., 50-lb. cyls., c.l., works lb. .45 - —
l.c.l., works lb. .55 - .60
Fluoride anhyd., cyls., dlvd. E lb. .30½ - .32¼
dlvd. W lb. .39 - —
tanks, works lb. .21 - —
Peroxide, USP, bbls., dlvd lb. .03¾ - .05
35%, dms., c.l., dlvd lb. .202 - —
l.c.l., dlvd lb. .211 - —
tanks, dlvd lb. .1800 - —
Hydroquinone, photo grade, bbls., dms lb. .98 - 1.00
tech., dms., c.l., dlvd lb. .82½ - —
l.c.l., dlvd lb. .84½ - —
Hydroxycitronellal, cns lb. 7.65 - 7.90
Hyoscine salts (see Scopolamine).
Hyoscyamine, bots oz. 13.50 - —
Hydrobromide, bots oz. 6.00 - 7.00
Sulfate, bots oz. 7.00 - 7.50
Hypernic extract, cryst., No. 2, bbls., l.c.l lb. .52 - —
liq., No. 1, bbls., l.c.l lb. .35 - —
No. 2, bbls., l.c.l lb. .27 - —

I

Ichthammol, NF, jars lb. .73 - 2.37
Indian red (see Red, Indian).
Indigo (see Dyes, coaltar, 1171 Indigo synthetic).
Indole, CP, bots lb. 17.00 - 21.00
Inositol, bots., dlvd lb. 5.00 - —
dms., dlvd lb. 4.50 - 4.75
Insect flowers (see Pyrethrum).
Iodine, crude, kgs lb. 1.42 - —
resub., USP, dms., jars lb. 2.30 - 2.32
Iodochlorohydroxyquinolin, USP, dms. lb. 5.90 - —
Iodoform, NF, dms., kgs lb. 4.90 - 5.00
a-Ionone, cns lb. 5.30 - 5.60
b-Ionone, cs lb. 6.00 - 7.70
Ipecac root, bgs., whole lb. 7.50 - 8.00
powd., bbls., bxs lb. 8.50 - 9.00
Irish moss, bleached, prime, bls lb. .28 - .34
Iron compounds (see Ferric or Ferrous).
Isoborneol, cns lb. 1.25 - 1.70
Isobornyl acetate, cns lb. .62 - .95
Formate, dms lb. .80 - —
Propionate, dms lb. 1.15 - 1.45
Isobutyl acetate, perfume grade, cns lb. .75 - 1.00
solvent grade, dms., c.l., dlvd. E. of Rockies lb. .14¼ - —
l.c.l., same basis lb. .15¼ - —
tanks, same basis lb. .11¾ - —
Isobutyraldehyde, CP, dms., c.l., dlvd lb. .27½ - —
l.c.l., dlvd lb. .28½ - —
tech., dms., c.l., dlvd lb. .21½ - —
l.c.l., dlvd lb. .22½ - —
tanks, dlvd lb. .19½ - —
Isoeugenol, cns lb. 4.40 - 4.75
Isoniazid, powd., bulk, 25-kilo lots or more kilo 23.00 - 25.50
smaller lots kilo 24.00 - 26.00
Isopentane, coml. grade, tanks, f.o.b. Tex, refy. gal. .15½ - —
Isonicotinic acid hydrazide (see Isoniazid).
Isophorone, dms., c.l., works lb. .24¼ - —
l.c.l., works lb. .24¾ - —
tanks, works lb. .22½ - —
Isopropanol (see Alcohol, isopropyl).
Isopropyl acetate, dms., c.l., dlvd. lb. .13 - —
l.c.l., same basis lb. .14 - —
tanks, same basis lb. .10½ - —
Alcohol (see Alcohol, isopropyl).
Benzene (see Cumene).
Ether, dms., c.l., dlvd lb. .07 - —
l.c.l., dlvd lb. .08 - —
tanks, dlvd lb. .05 - —
Isopropyl-N-(3-chlorophenyl) carbamate, (CIPC), 70% in xylol, dms., c.l., t.l., works lb. .70 - —
l.c.l., works lb. .714 - .814
Isopropylamine (see Mono, Di, or Tri-).
Isopropyl-N-phenyl carbamate, 450-lb. fib. dms., c.l., t.l., works. lb. .75 - —
l.c.l., works lb. .80 - .90
Isoquinoline, dms., works lb. .65 - 1.25



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Proof that "45X" strengthens adhesion in Primers.

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In Canada: **CANADIAN TITANIUM PIGMENTS LIMITED,** 630 Dorchester Street, West · Montreal

J

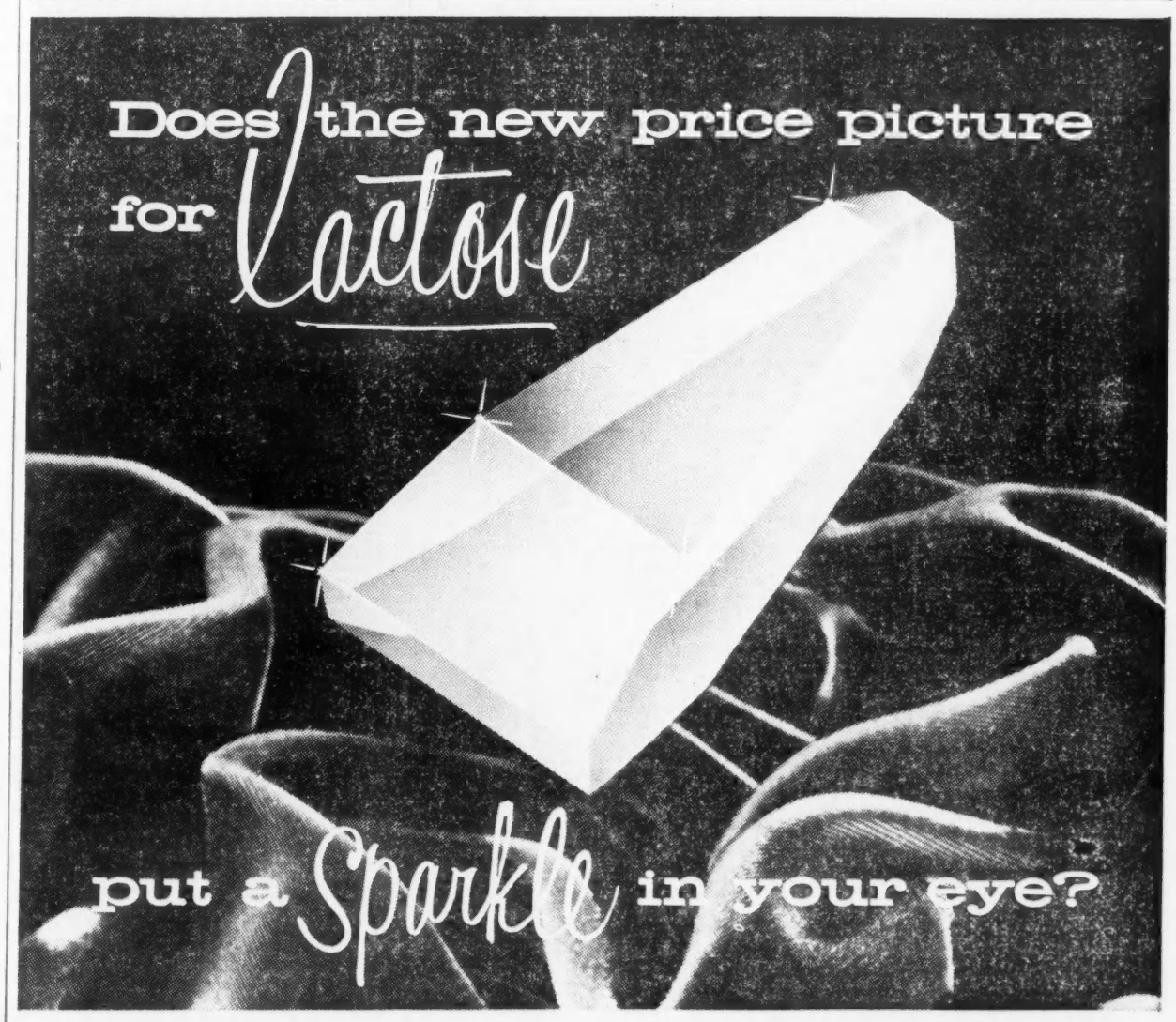
Jalap root, NF, bls	lb.	.45	.55
powd., bbls., bxs	lb.	.55	.65
Juniper berries, bgs	lb.	.18	.20
Tar, NF, dms	lb.	.42	.60

K

Kaolin (see also Clay China).			
NF, powd., fib. dms	lb.	.10	.12
colloidal, fib. dms	lb.	.15½	.17½
Kola nuts, bgs	lb.	.15	—

L

Lactose, edible, fib. dms., 30,000-lb. lots, works	lb.	.19½	—
2,000-lb lots, works	lb.	.20¼	—
200-1,800-lb. lots, works	lb.	.20¾	—
Edible lactose in bgs 1c. lower.			
Fermentation grade, bgs., c.l., works	lb.	.08½	—
USP, fib. dms., 30,000-lb. lots, works	lb.	.21½	—
2,000-lb. lots, works	lb.	.22¼	—
200-1,800-lb. lots, works	lb.	.22¾	—
USP lactose in bgs. 1c. lower.			
Lady's slipper root, bls	lb.	1.70	1.75
Lanolin, cosmetic, dms., works	lb.	.28	.30
USP, anhyd., dms., works	lb.	.26	.28
hydrous, dms., works	lb	.25	.27
Lard, cash, dms., Chicago	lb.	.1360	—
Larkspur seed, bgs	lb.	.20	.23
Laurel leaves, Greek, bls	lb.	.12	—
Portuguese, bls	lb.	.11	—
Turkey, bls	lb.	.25	—
Yugoslavia, bls	lb.	.11	—
n-Lauryl methacrylate, dms., c.l. or t.l., works	lb.	.65½	—
Lavender flowers, medium, bls	lb.	.75	.80
ord., bls	lb.	.25	.40
select., bls	lb.	.90	—
Lead acetate, white, cryst., bbls	lb.	.23½	—
gran., bbls	lb.	.24½	—
powd., bbls	lb.	.24½	—
NF, cryst., gran., powd	lb.	.32½	.33½
Arsenate, acid powder, dealers, 3-lb. bgs. or larger, c.l., frt alld on 96 lbs. or more	lb.	.27½	—
l.c.l., frt. alld	lb.	.28½	—
1-lb. bgs., c.l	lb.	.41½	—
l.c.l.	lb.	.42½	—
Blue, basic sulfate, bbls., c.l., shipt. point, frt. alld	lb.	.17¼	—
l.c.l., same basis	lb.	.18¼	—
Carbonate (see Lead, white, basic carbonate).			
Chloride, dms	lb.	.45	—
Iodide, NF, V jars	lb.	3.32	—
Linoleate fused, 26% Pb, dms.	lb.	.33	—
Metal pigs, prime, N. Y.	lb.	.16	—
St. Louis	lb.	.1580	—
Metallic paste, dms., 20,000-40,000-lb. lots, works	lb.	.33¾	—
10,000-20,000-lb. lots, same basis	lb.	.34¾	—
200-2,000-lb lots, same basis.	lb.	.35¾	—
Prices ex whse, Jersey City, N. J., 4½c. per lb. higher.			
Monosilicate bgs., c.l., works, frt. equald	lb.	.20	—
l.c.l., same basis	lb.	.2075	—
Naphthenate, liq., 16% Pb, dms., dlvd	lb.	.17	—
24% Pb., dms., dlvd	lb.	.21	—
solid, 37% Pb., dms., dlvd	lb.	.27½	—
Nitrate, bbls	lb.	.23¾	—
Orthosilicate-silica gel, 50-60% PbO dms. works	lb.	.29¾	.34¼
Peroxide, tech., powd., bbls	lb.	.38¾	.40¼
Phthalate, dibasic, dms., works	lb.	.41	—
Red, 95% Pb_3O_4, or less, bbls., c.l., works, frt. alld	lb.	.18½	—
l.c.l., same basis	lb.	.19	—
97% Pb_3O_4, bbls., c.l., same basis.	lb.	.18¾	—
l.c.l., same basis	lb.	.19¼	—
98% Pb_3O_4, bbls., c.l., same basis.	lb.	.19	—
l.c.l., same basis	lb.	.19½	—
Resinate, precip., 23% Pb, dms., dlvd	lb.	.32½	—
Salicylate, normal, dms., works.	lb.	.46	—
Silicate (see Lead, white, basic, silicate)			
Sulfate (see Lead, blue, basic sulfate, Lead white, basic sulfate).			
Tallate, liq., 16% Pb, dms	lb.	.15	—
24% Pb., dms	lb.	.18½	—
solid, 30%	lb.	.23¼	—
White, basic carbonate, bgs., c.l., shipt. point, frt. alld	lb.	.19	—
l.c.l., same basis	lb.	.20	—
silicate, bgs., c.l., shipt. point, frt. alld	lb.	.17¼	—
l.c.l., same basis	lb.	.18¼	—
sulfate, bgs., c.l., shipt. point, frt. alld	lb.	.17¼	—
l.c.l., same basis	lb.	.18¼	—
Lecithin, edible, tech., bleached, non-ret, dms., c.l., works	lb.	.15	.17
l.c.l., same basis	lb.	.15½	.17½
unbleached, non-ret. dms., c.l., same basis	lb.	.13	.15
l.c.l., same basis	lb.	.14½	.16½
Lemon bioflavinoid complex, 25-lb. lots, f.o.b., works	lb.	9.00	—
dl-Leucine, dms., works	lb.	12.25	15.00
Licorice root, whole, bbls	lb.	.10	.12
gran., bbls	lb.	.15	.17
powd., bbls	lb.	.12	.15
Lignosulfonate, 70% tannin, bgs., c.l., works	lb.	.06½	—
l.c.l., works	lb.	.06¾	—
Lime, chemical (quicklime), bulk, c.l., metropolitan N. Y. destination, freight equalized with nearest producing point	ton.	18.71	—
Hydrated, bulk, c.l., same basis.	ton.	20.21	—
Spray, bgs., c.l., same basis	ton.	23.21	—
Lime salts (see Calcium).			
Lime-ammonium nitrogen 20.5% N (see Ammonium nitrate with dolomite).			
Limestone grd., bgs., works	ton.	3.50	4.00
Linalool, ex bois de rose oil, dms.	lb.	4.50	5.00
ex lignaloe wood oil, dms	lb.	5.30	7.10
Linalyl acetate, ex bois de rose, 90-92%, dms	lb.	4.40	4.80
96-98%, dms	lb.	6.75	7.15
ex petitgrain, bots.	lb.	5.95	6.70
Lindane, 25% formulation, dealers, dms., frt. alld	lb.	1.00	1.09
99%, tech., formulators, dms., frt. alld	lb.	2.65	3.25
Linden flowers with leaves, bls	lb.	.30	—
without leaves, bls	lb.	.35	—
Linseed meal, expeller, 32-34% bulk, Midwest, mills	ton.	59.50	—
extracted, 36%, bulk, same basis.	ton.	53.00	—
Litharge, coml., powd., bbls., c.l., works, frt. equald	lb.	.17½	—
l.c.l., same basis	lb.	.18	—
Lithium benzoate, dms	lb.	1.65	1.67
Bromide, NF, dms., works, frt. equald	lb.	2.30	—
Carbonate, NF, dms., c.l., t.l., dlvd	lb.	1.29½	—
ton lots to t.l., dlvd	lb.	1.30	—
tech., dms., c.l., t.l., dlvd., frt. alld., works	lb.	.82	1.10¼
l.c.l., same basis	lb.	.85	1.11½
Lithium chloride, CP, anhyd., ton lots	lb.	1.28½	—
tech., anhyd., dms., c.l., t.l., dlvd., or works, frt. alld.	lb.	1.00	1.05
l.c.l., same basis	lb.	1.05	1.05½
Citrate, NF, dms	lb.	1.60	1.64
Fluoride, bbls., 10,000-lb. lots, dlvd	lb.	2.17½	—
ton lots, dlvd	lb.	2.18½	—
less ton lots, dlvd	lb.	2.23½	—
Hydride, powd., dms., 500-lb. lots, works	lb.	10.50	12.50
Hydroxide, monohydrate, dms., c.l., t.l., dlvd. or works, frt. alld	lb.	.80	.80½
l.c.l., same basis	lb.	.81	.81½
Manganite, dms., works	lb.	.95	1.15
Nitrate, tech., dms., 100-lb. lots.	lb.	1.25	—
Salicylate, dms	lb.	1.60	1.70
Lithium silicate, dms., works	lb.	1.10	1.30
Stearate, dms., c.l., works	lb.	.47½	—
ton lots, works	lb.	.48½	—
less-ton lots, works	lb.	.53½	—
Sulfate, dms., 100-lb. lots	lb.	1.45	—
Titanate dms., works	lb.	1.15	1.35
Lithopone ord., bgs., c.l., dlvd	lb.	.07½	—
l.c.l., dlvd	lb.	.08¼	.08½
titanated (high-strength), bgs., c.l., dlvd	lb.	.10	—
l.c.l., dlvd	lb.	.11	—
Lithopone prices, Pacific Coast, 1c. per lb. higher.			
Lobelia herb, bls	lb.	1.50	—
Lobeline sulfate, bots., works	oz.	37.50	39.00
Logwood extract, cryst., No. 1, bbls., l.c.l	lb.	.41	—
No. 2, bbls., l.c.l	lb.	.39	—
liq., No. 1, bbls., l.c.l	lb.	.20	—
No. 2, bbls., l.c.l	lb.	.19	—
No. 3, bbls., l.c.l	lb.	.18½	—
solid No. 1, boxes, c.l	lb.	.35	—
Lycopodium, cs	lb.	1.20	2.00
dl-Lysine hydrochloride, bots	kilo.	140.00	150.00



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McKESSON & ROBBINS, INC. CHEMICAL DIVISION

L. H. BUTCHER CO. (WEST COAST)

M

Mace, Siauw, siftings, bls ..... lb. 2.25 - 2.75
West Indian, No. 1, bls. shipment lb. 2.90 - —
Magnesia, calcined, tech., bgs., ctns., works lb. .25¼- .26
syn. rubber grade, light, bgs., c.l., works lb. .29¼- —
extra light, bgs., works lb. .29¼- .30
l.c.l., works ..... lb. .30 - —
USP, light, ctns ..... lb. .35 - .36
heavy, bbls. ..... lb. .45 - .52
Magnesite, chemical grade, calcined, powd., bgs., c.l., works, frt. equald ton.82.50 - —
dead-burnt, standard grain, bulk, c.l., Chawelah, Wash. ton.40.00 - —
Magnesium bromide, jars ..... lb. .90 - 1.00
Carbonate, tech., bgs., c.l., frt. equald lb. .10½- —
t.c.l., frt. equald lb. .12 - .13
truckloads, frt. equald lb. .11 —
USP, bgs., c.l., frt. equald lb. .12½- —
t.l., frt. equald ..... lb. .13 - —
l.c.l. frt equald lb. .14 - .15

Above prices are quoted f.o.b. works, freight equalized with metropolitan New York and competitive producing points.

Chloride, anhyd., 92% flake or pebble, dms., c.l., works lb. .12¾- —
t.c.l. same basis lb. .14 - .15
hydrous, 99% flake, bgs., c.l., works ton.50.00 - —
l.c.l., works ..... ton.55.00 -105.00
Magnesium gluconate, dms., cns. lb. 1.34 - 1.41
Hydroxide, NF, medicinal, bbls., dms., bgs. lb. .26½- .30
Metal, 99.8% ingots, 10,000 lb. lots or more, works. lb. .34½- —
pigs, 10,000-lb. lots or more, works. lb. .33¾- —
sticks, cs., works, frt. alld. on carlots. lb. .56 - —
Oxide (see Magnesia, calcined).
Peroxide, 15%, dms., works .... lb. 1.00 - 1.05
Phosphate, tribasic, NF, bbls. lb. .75 - —
Silicate (see Talc).
Silicofluoride, dms., works ..... lb. .10½- .12
Sulfate, tech., bgs., c.l., works 100 lbs. 2.15 - —
l.c.l., works ..... 100 lbs. 2.90 - 3.15
USP, cryst., bgs., c.l., works. 100 lbs. 2.35 - —
t.c.l., 5,000 lbs., 1 withdrawal 100 lbs. 3.10 - —
smaller lots ..... 100 lbs. 3.35 - —
Trisilicate, USP, dms., 5,000-lb. lots lb. .38 - —
1,000-lb. lots ..... lb. .40 - —
100-lb. lots ..... lb. .45 - —

Bulky and super grades of magnesium trisilicate, 7c. per lb. higher.

Malathion, dms., c.l., works ..... lb. .90 - —
l.c.l., works ..... lb. .92 - 1.02
Maleic anhydride, dms., c.l., dlvd. E lb. .27 - —
l.c.l., dlvd. E ..... lb. .28 - —
tanks, dlvd. E ..... lb. .26 - —

Prices on maleic anhydride W. of Rockies, 1½c. higher.

Mandrake root, bls. ..... lb. .59 - .60
Manganese acetate, bbls., dlvd lb. .25 - —
Arsenate, bgs. ..... lb. .16 - —
Borate, tech., fib. dms. ..... lb. .25 - —
Carbonate, bbls., works ..... lb. .22 - —
Manganese chloride, anhyd., dms., works lb. .25½- —
Dioxide, African, 84-87%, 40,000 to 99,999-lb. lots, burlap paper lined, bgs., gross for net, works. ton.102.00 - —
paper bgs., works .... ton.98.50 - —
dms., works ..... ton.106.50 - —

Prices for manganese dioxide in 10,000 to 40,000-lb. lots $3 per ton higher.

Gluconate, dms. ..... lb. 1.80 - 1.94
Hydrate, bbls., dlvd ..... lb. .36 - —
Hypophosphite, NF, dms ..... lb. 3.52 - —
Linoleate, liq., 4.35% Mn., dms. lb. .32½- —
solid, precip., 8.2% Mn. bbls. lb. .37½- —
Naphthenate, liq., 6% Mn., dms., frt. alld lb. .27 - —
Resinate, fused, 3½% Mn, dms. lb. .24 - —
precip., 6½-7% Mn, dms ... lb. .28 - —
Sulfate, fertilizer grade, 65%, bgs., c.l., dlvd. S. E. ... ton.80.50 - —
l.c.l., dlvd. S. E. ... ton.87.50 - —
Tallate, 6%, dms. ..... lb. .24 - —
Mangrove bark, E. African, 38% tannin, c.l., ex dock ton.68.00 - —
So. American 30% tannin, c.l., tannin, c.l., ex dock ton.55.00 -58.00
Mannitol, com'l, fib. dms., ton lots, works lb. .60 - —
dms. to ton lots, works .... lb. .62 - —
single dm., works ..... lb. .65 - —
MBT (see 2-Mercaptobenzothiazole).
MBTS (see Mercaptobenzothiazyl disulfide).
Melamine, bgs., carlots, works. lb. .30 - —
l.c.l., works ..... lb. .31 - —
Menadione, USP, bots. ..... gram. .044 - .05
Menthol, nat., USP, Brazilian, cs. lb. 6.30 - 6.40
syn., USP, racemic, cns. ..... lb. 4.95 - —
Menthyl salicylate, tins ..... lb 4.00 - 4.25
2-Mercaptobenzothiazole, bgs., fib. dms., ton-lots, works, frt. alld lb. .40 - —
less ton lots, same basis lb. .42 - —
Mercaptobenzothiazyl disulfide, bgs., fib. dms., ton-lots, works, frt. alld. lb. .50 - —
less ton lots, same basis lb. 52 - —
Mercuric chloride, NF, cryst., dms., 50-lb. lots or more lb. 4.98 - —
gran., or powd., dms., 50-lb. lots or more lb. 4.78 - —
Cyanide, NF VIII, powd., fib. dms. lb. 6.84 - —
Iodide, red, NF, fib. dms lb. 7.72 - —
Oxide, red, NF, powd., fib. dms lb. 5.97 - 6.01
yellow, tech. (see Yellow mercury oxide).
USP, fib. dms ..... lb. 6.14 - —
Mercurous chloride (see Calomel).
Iodide, yellow, NF lb. 7.72 - —
Mercury, ammoniated (see White precipitate USP).
Metal, 76 lb. per flask .. net-flask.268.00 -270.00
Mesityl oxide, dms., c.l., dlvd lb. .1350- —
l.c.l., dlvd. ..... lb. .1450- —
tanks, dlvd. ..... lb. .1150- —
Meta-aminophenol (see m-Aminophenol).
Metachloroaniline (see m-Chloroaniline).
Metanitroaniline (see m-Nitroaniline).
Metanitroparatoluidine (see m-Nitro-p-toluidine).
Metaphenylenediamine (see m-Phenylenediamine).
Metatoluidine (see m-Toluidine).
Metatolylenediamine (see 2,4-tolylenediamine).
Methanol, nat., denaturing grade, tanks, frt. alld. gal. .75 - —
syn., Zone 1, dms., c.l. dlvd. or truckload min., frt. alld. gal. .45 - —
l.c.l., same basis gal. .51 - —
tankwagon, 2,000-4,000-gal. lots, dlvd. Metropolitan area gal. .33 - —
4,000 gal., min., frt. alld. or dlvd gal. .30 - —
4,000 gal., min., works, Carteret, Camden, N. J. gal. .27½- —
Zone 2, dms., c.l., or truckload min. frt. alld. or dlvd gal. .48 - —
l.c.l., same basis gal. .54 - —
tankwagon, 2,000-4,000-gal. lots, min., dlvd. Metropolitan areas gal. .36 - —
tanks, 4,000 gal., min., frt. alld. or dlvd gal. .33 - —

Synthetic methanol zones are:—Zone 1 is all continental U. S. E. of eastern boundaries of Ariz., Idaho and Utah. Zone 2 is remainder of U. S. west of above state boundaries comprising Ariz., Calif., Idaho, Nev., Ore., Utah and Wash.

Methenamine (see Hexamethylenetetramine).
dl-Methionine, fib. dms., frt. alld. 50-lb. or more lb. 3.50 - —
feed grade, 98%, fib. dms., same basis lb. 2.65 - —
Methoxychlor, 50% wettable powder, dealers, dms., cs., frt. alld lb. .61 - .64
Methyl abietate, non-ret. dms., c.l., dlvd. zone 1 lb. .20¼- —
t.c.l. same basis lb. .21 - —
hydrogenated, non-ret. dms., c.l., dlvd. Zone 1 ..... lb. .21 - —
t.c.l. same basis lb. .21½- —

Zone 1 includes New England and Middle Atlantic states, Va., W. Va., N. C., Ohio, Ky., Mich., Ind., Ill., Wis., St. Paul and Minneapolis, Minn.; St. Louis, Mo.; Miss., Ala, Ga., Fla., S. C. and Tenn.

Acetone, nat., dms., t.c.l., E. of Miss., frt. alld. gal. .62½- —
syn., dms., c.l., frt. alld. E gal. .57 - —
t.c.l., frt. alld. E ..... gal. .63 - —
tanks, frt. alld E ..... gal. .45 - —

Synthetic methyl acetone E. territory is all States East of and including Colo., Mont., N. Mex. and Wyo. West territory all states west of those four.

Acrylate, dms., c.l., t.l., dlvd. lb. .39 - —
t.t.l., dlvd ..... lb. .40 - —
tanks, dlvd ..... lb. .37 - —
Alcohol (see Methanol).
Amyl acetate, dms., c.l., dlvd. E. lb. .16 - —
l.c.l., dlvd. E ..... lb. .17 - —
tanks, dlvd. E ..... lb. .13½- —
Ketone, dms., works ..... lb. 1.05 - —
Anthranilate, cns ..... lb. 2.50 - 2.65
Benzoate, cns., dms ..... lb. .53 - .65
Bromide, jobbers, cyls., various sizes, frt. alld. E lb. .47 - .61
Cellulose, special vis. (1,500-4,000 cps.) 50-lb. bgs., c.l., works, lb. .78 - —
2,000-lb. lots and more, same basis lb. .65 - —
smaller lots, frt. alld. on 100 lbs. lb. .89 - 1.00
standard vis., (15,400 cps.). 50-lb. bgs., c.l., frt. alld. lb. .66 - —
2,000-lb. lots and more, same basis lb. .72 - —
smaller lots, frt. alld. on 100 lbs. lb. .75 - .85
Chloride, indust., cyls., frt. equald. lb. .21 - —
tanks, multi-unit, same basis. lb. .15 - —
single unit, same basis lb. .11½- —
refrigerator mfrs., cyls., dlvd. lb. .46 - .48
other consumers or service men, cyls., dlvd lb. .67 - —
Chloroform (see 1,1,1-trichloroethane).
Cinnamate, cns. ..... lb. 1.43 - 1.80
Cyclohexanol, dms., c.l., works lb. .35½- —
t.c.l., works ..... lb. .36 - —
tanks, works ..... lb. .34 - —
Ethyl ketone, dms., c.l., dlvd. lb. .14 - —
l.c.l., dlvd. ..... lb. .15 - —
tanks, dlvd ..... lb. .11½- —
Formate, refd., dms ..... lb. .35 - .40
tech., non-ret. dms., any quantity, works lb. .10 - —
Heptin carbonate, bots ..... lb. 33.00 -42.00
p-Hydroxybenzoate, fib. dms lb. 1.90 - 2.00
Ionone, standard, cns., dms. lb. 5.20 - 5.50
Isobutyl carbinol, dms., c.l., dlvd. lb. .16 - —
l.c.l., dlvd. ..... lb. .17 - —
tanks, dlvd ..... lb. .13½- —
Ketone, dms., c.l., dlvd ..... lb. .16 - —
l.c.l., dlvd. lb. .17 - —
tanks, dlvd ..... lb. .13½- —
Methacrylate, dms., c.l., t.l., frt. equald with Belle, W. Va. lb. .31 - —
smaller lots, same basis ..... lb. .31½- —
tanks, same basis ..... lb. .29 - —
Naphthyl ketone, cryst., cns. lb. 3.00 - 4.30
Parahydroxybenzoate (see Methyl p-Hydroxybenzoate).
Rosaniline chloride, NF, fib. dms., 5-lb. lots ..... lb. 8.64 - —
Salicylate, USP, cns., 500-lb. lots lb. .56 - —
Testosterone, USP, 100-gram bots. gram. .68 - —

with TRONA Superior Quality Electrolytic Battery-Active*

MANGANESE DIOXIDE

MnO_2

DEVELOPED TO MEET THE NEEDS OF THE U.S. ARMY SIGNAL CORPS—NOW AVAILABLE FOR COMMERCIAL USE

American Potash & Chemical Corporation (Nevada) is producing a superior quality electrolytic battery-active manganese dioxide from abundant low-grade domestic ores at its Henderson, Nevada plant. Now in large-scale production, MnO_2 is meeting the urgent needs and high standards of the U.S. Army Signal Corps, where top performance and weight reduction are important factors in heavy-duty cold weather and hot weather batteries. This development of battery manganese as a depolarizer in dry cells, which was accomplished with the assistance of the U.S. Bureau of Mines and the Signal Corps, makes electrolytic battery-active manganese dioxide now available on an economical basis for extensive applications in important segments of the *commercial* battery industry. *No finer battery manganese is available.*

* *Trade Mark AP & CC*

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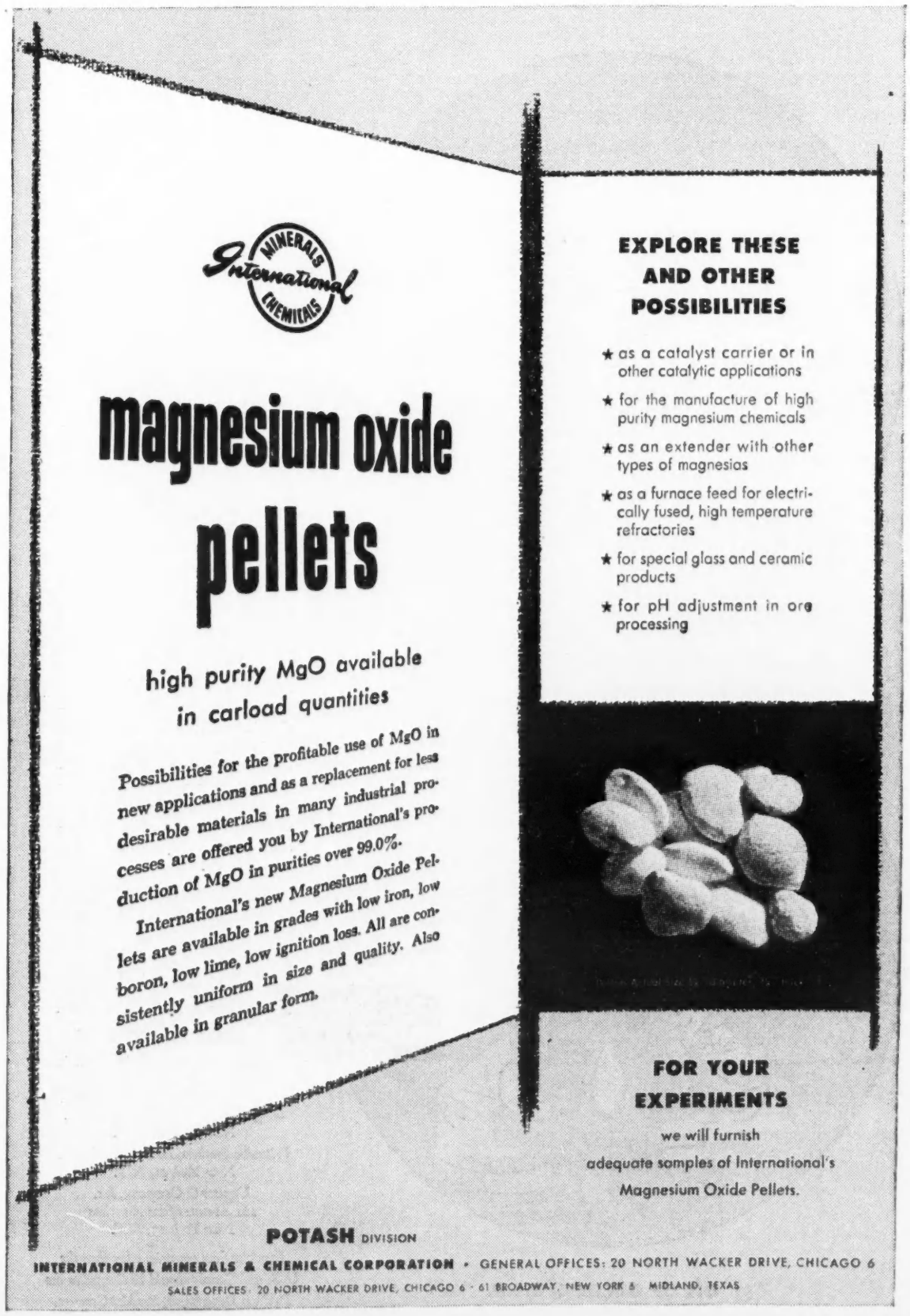
Export Division 99 Park Avenue, New York 16, New York

PRODUCERS OF BORAX • POTASH • SODA ASH • SALT CAKE • LITHIUM • BROMINE • CHLORATES • PERCHLORATES • MANGANESE DIOXIDE • *and a diversified line of specialized agricultural and refrigerant chemicals*

2-Methylbenzylamine, dms., l.c.l., works lb. 1.25 - —
2-Methylbenzyl dimethylamine, dms., c.l., works lb. 1.89 - —
l.c.l., works lb. 1.90 - —
2-Methyl-5-ethyl pyridine dms., ea., works lb. .445 - —
l.c.l., works lb. .45 - —
tanks, works lb. .43 - —
Methylene blue, fib. dms., 100-lb. lots, frt. adjusted lb. 3.25 - 3.40
smaller lots, same basis lb. 3.40 - 3.55
Chloride, tech., dms., c.l., dlvd. E lb. .12½-
l.c.l., same basis lb. .15 -
tanks, same basis lb. .11¼-
b-Methylnaphthalene, 32°C. m.p., dms., works lb. .90 - —
Methylpentanediol (see Hexylene glycol).
Methylphenylpyrazolone (see 1-Phenyl-3-methylpyrazolone-5).
Methylthionine chloride (see Methylene blue).
Mica, dry-grd., paint plastic, 100 mesh, bgs., c.l., works lb. .04¼- —
roofing, 20 to 80 mesh, works lb. .03 - .04
wet-grd., biotite, bgs., c.l., works, frt. alld. E lb. .06¾-
l.c.l., ex-whse. or frt. alld. E lb. .07½- —
paint or lacq., bgs., c.l., works, frt. alld lb. .08¼- —
l.c.l., ex-whse. or frt. alld. E lb. .09 - —
rubber, bgs., c.l., works, frt. alld. E lb. .08 - —
l.c.l., ex-whse. or frt. alld. E lb. .09 - —
wallpaper, bgs., c.l., works, frt. alld., E lb. .08¼- —
l.c.l., ex-whse. or frt. alld. E lb. .08¾- —
white, extra, fine, bgs., c.l., works, frt. alld. E lb. .08¼- —
l.c.l., ex-whse. or frt. alld. E lb. .09 - —
Mica, wet-grd. W. of Miss. ½c. higher; W of Rockies, 1c. higher.
Mineral spirits (see Petroleum mineral spirits).
Molasses, blackstrap feed grade, tanks, New Orleans gal. .13 - .13½
New York gal. .16 - —
Molybdenum (metal), powd., 80 or 200 mesh, ctns., works kilo 6.80 - —
Trioxide, pure dms., works lb. 1.10 - —
tech., dms., works, basis Mo. content lb. 1.31 - —
Monobutylamine, dms., c.l., E. of Rockies lb. .55 - —
l.c.l., same basis lb. .56 - —
tanks, same basis lb. .53 - —
Monochlorobenzene, dms., c.l., frt. alld. or dlvd. E lb. .10 - —
l.c.l., same basis lb. .11 - —
tanks, same basis lb. .08½- —
Monoethanolamine, dms., c.l., dlvd. E lb. .27 - —
l.c.l., same basis lb. .28 - —
tanks, same basis lb. .25 - —
Monoethylalphanaphthylamine (see N-Ethyl-a-naphthylamine).
Monoethylamine, 70% contained amine, dms., c.l., dlvd. E lb. .35 - —
l.c.l., dlvd. E lb. .36 - —
tanks, dlvd. E lb. .33 - —
Monoethylaniline (see N-Ethylaniline).
Monoethylorthotoluidin (see N-Ethyl-o-toluidine).
Monoisopropanolamine, dms., c.l., dlvd. E lb. .27 - —
l.c.l., same basis lb. .28 - —
tanks, same basis lb. .25 - —
Monoisopropylamine, dms., c.l., dlvd. lb. .32 - —
l.c.l., same basis lb. .33 - —
tanks, same basis lb. .30 - —
Monomethylamine, 30-35% soln., dms., c.l., frt. equald, 100% basis. lb. .40 - —
l.c.l., frt. equald 100% basis. lb. .40¼- —
tanks, frt. equald 100% basis. lb. .31 - —
40% soln., dms., c.l., frt. equald., 100% basis lb. .37 - —
l.c.l., frt. equald, 100% basis. lb. .37½- —
tanks, frt. equald, 100% basis. lb. .31 - —
Monosodium fluoroacetate (see Sodium fluoroacetate monobasic).
Mono-tertiary-butylmetacresol (see 6-tert-Butyl-m cresol)
Glutamate (see Sodium glutamate monobasic).
Phosphate (see Sodium phosphate monobasic).
Morphine, cns oz. 12.40 -12.60
Acetate, anhyd., cns oz. 9.95 -10.00
Hydrobromide, cns oz. 9.90 - 9.95
Hydrochloride, NF, cns oz. 9.90 - 9.95
Sulfate, USP, cns oz. 9.90 -10.05
Morpholine, dms., c.l., dlvd. E lb. .54¾- —
l.c.l. dlvd. E lb. .55¾- —
tanks dlvd E lb. .52¾- —
Musk, syn., ambrette, 100-lb. lots, fib. dms. lb. 5.15 - —
25-lb lots, cns lb. 5.20 - —
5-lb. lots, cns lb. 5.30 - —
ketone, 100-lb. lots, fib. dms. lb. 5.30 - —
25-lb lots, cns lb. 5.35 - —
5-lb lots, cns lb. 5.45 - —
xylol, 100-lb. lots, fib. dms. lb. 1.40 - —
25-lb lots, cns lb. 1.45 - —
5-lb lots, cns lb. 1.50 - —
Mustard seed, Danish, yellow, bgs lb. .10½- —
Dutch, bgs. lb. .10½- —
English, yellow, bgs lb. .10½- —
Montana, oriental, bgs lb. .09 - —
Myrobalans, J-1, assorted, bgs., ex dock ton. 64.00 -65.00
crushed, bgs., ex dock ton. 79.00 -80.00
Bombay, bgs., ex dock ton. 63.00 -64.00
bgs., ex dock, plus duty lb. .10 - .10¼

N

Naphtha, painters (see Petroleum naphtha V. M. & P.).
Solvent (see S)
Naphthalene, crude, dom., 74°, tanks, frt. equald lb. .06¼- —
78°, bgs., c.l., same basis lb. .07½- .08
l.c.l., same basis lb. .07¾- .08¼
tanks, same basis lb. .07 - —
imp., 78° large lots lb. .07 Nom.
refd., indust., chipped or crushed, bgs., frt. equald lb. .12½- —
tanks, same basis lb. .11¾- —
balls, flakes, wholesalers, jobbers, bbls., c.l., same basis. lb. .15½- —
cs., 50 lbs., c.l., same basis lb. .15¾- —
1-lb. pkgs., c.l., same basis. lb. .18½- —
a-Naphthol, bbls., frt. alld lb. 1.00 - —
b-Naphthol, tech., flake, bbls., c.l., works lb. .33 - —
l.c.l., works lb. .35 - —
Benzoate, fib dms., works lb. 3.00 - —
custom contract, works lb. 1.65 - —
Salicylate, dms lb. 5.00 - —
Sulfate, cns lb. 35.00 - —
a-Naphthylamine, bbls. frt alld lb. .50 - —
b-Naphthylamine, tech. flake, bbls., works lb. 1.60 - —
Neocinchophen, USP, dms., frt. adjusted lb. 7.00 - 8.00
Neomycin, fib, dms., 1 kilo lots, basis, activity gram. .48 - —
500-999 gram lots, basis, activity gram. .50 - —
Nerolin, cns. lb. 2.15 - 2.65
Niacin (see Acid nicotinic).
Niacinamide (see Nicotinamide).
Nickel acetate, bbls., dlvd. lb. .77 - .90½
Carbonate bbls., dlvd. lb. .73¾- .81¾
Chloride, bbls., dlvd lb. .38½- .46½
Formate, bbls., ton lots, frt. alld lb. .68 - .69
Metal, electro cathodes, cs., works lb. .64½- —
Nitrate, bbls., works lb. .37 - .38
Oxide, black, bbls. lb. .76 - —
green, bbls. lb. .76 - —
Sulfate, bgs., c.l., dlvd lb. .30¼- —
l.c.l., dlvd lb. .31¼- .38¼
Nicotinamide, USP, dms., frt. adjusted kilo. 12.00 -12.30
Hydrochloride, dms., frt. adjusted. kilo. 11.50 -11.80
Nicotine sulfate, 40%, dealers, 50-lb. dms., frt. alld lb. 1.20 - —
manufacturers, 500-lb. dms., frt. alld. lb. 1.05 - —
Niger seed, bgs lb. .11 - .11½
Nikethamide, cbys lb. 7.50 - —
m-Nitroaniline, cryst., dms., frt. alld. lb. 1.15 - —
paste, 100% basis, dms., frt. alld. lb. 1.10 - —
o-Nitroaniline, flaked, 10,000 lbs. or more, dms. lb. .54 - —
less than 10,000 lbs lb. .57 - —
p-Nitroaniline, dms., frt. alld. lb. .443 - —
Nitrobenzene, dbl. dist., dms., c.l., frt. alld. lb. .12 - —
l.c.l., frt. alld. lb. .13 - —
tanks, frt. alld. lb. .11 - —
Nitrocellulose, ester-soluble, 30-35 cps., ¼, ½, ¾, 5-6, 15-20, 30-40, 60-80, 125-175, secs., bbls., c.l., works lb. .34 - —
l.c.l., same basis lb. .35 - .37
18-25 cps., bbls., c.l., same basis lb. .36 - —
l.c.l., same basis lb. .37 - .39
250-400, 600-1,000 secs., bbls., c.l., same basis lb. .39 - —
l.c.l., same basis lb. .40 - .42
spirit-soluble, 30-35 cps., ¼, ½, secs., bbls., c.l., same basis lb. .41 - —
l.c.l., same basis lb. .42 - .44
5-6 cps., 40-60 secs, bbls., c.l., same basis lb. .40 - —
l.c.l., same basis lb. .41 - .43
Denatured alcohol used in the manufacture of nitrocellulose is charged extra. Drums extra but returnable.
o-Nitrochlorobenzene, dms., c.l., frt. alld lb. .20 - —
l.c.l., same basis lb. .21 - —
tanks, same basis lb. .18 - —
p-Nitrochlorobenzene, dms lb. .26 - .27
2-Nitro-4-chlorophenol dms lb. .75 - —
Nitroethane, dms., c.l., dlvd. E lb. .24 - —
l.c.l., dlvd. E lb. .24¾- —
tanks, dlvd. E lb. .22½- —
Prices West of Rockies are 1c. higher.
Nitrogen solution, 37% N, tanks, frt. equald., per ton of product basis ton. 47.50 - —
40.8% N, tanks, same basis ton. 52.15 - —
Nitrogenous process tankage, bulk, works unit-ton. 3.00 - 4.00
Sewage sludge, bulk, works, unit-ton. 2.93 + .50
Nitromethane, dms., c.l., dlvd. E lb. .24 - —
l.c.l., dlvd. E lb. .24¾- —
tanks, dlvd. E lb. .22½- —
Prices West of Rockies are 1c. higher.
a-Nitronaphthalene, bbls., frt. alld. lb. .41 - —
Nitropropane-1, and -2, dms., c.l., dlvd. E lb. .22½- —
l.c.l., dlvd. E lb. .23¼- —
tanks, dlvd. E lb. .21 - —
Prices West of Rockies are 1c. higher.
o-Nitrophenol, dms., works, frt. equald lb. .94 - —
p-Nitrophenol, dms., works, frt. equald lb. .50 - —
o-Nitrotoluene, dms. c.l., frt. alld. lb. .10 - —
l.c.l. frt. alld lb. .11 - —
tanks, frt. alld lb. .09 - —
p-Nitrotoluene, dms., works lb. .33 - —
m-Nitro-p-toluidine, dms lb. 1.59 - —
Nitrous ether, cone., pots 100-lb. lots lb. 1.28 1.38
Nonyl phenol, dms., c.l., frt. alld. lb. .26 - —
l.c.l. frt. alld lb. .27 - —
tanks, frt. alld lb. .24 - —
Nutgalls, Aleppo, bgs lb. .36 - .38
Chinese, bgs lb. No prices.
Nutmeg, East Indian, bgs lb. .65 - —
West Indian, bgs lb. .66 - —
Nux vomica, bls lb. .10 - .12
powd., bbls., bxs lb. .15 - .17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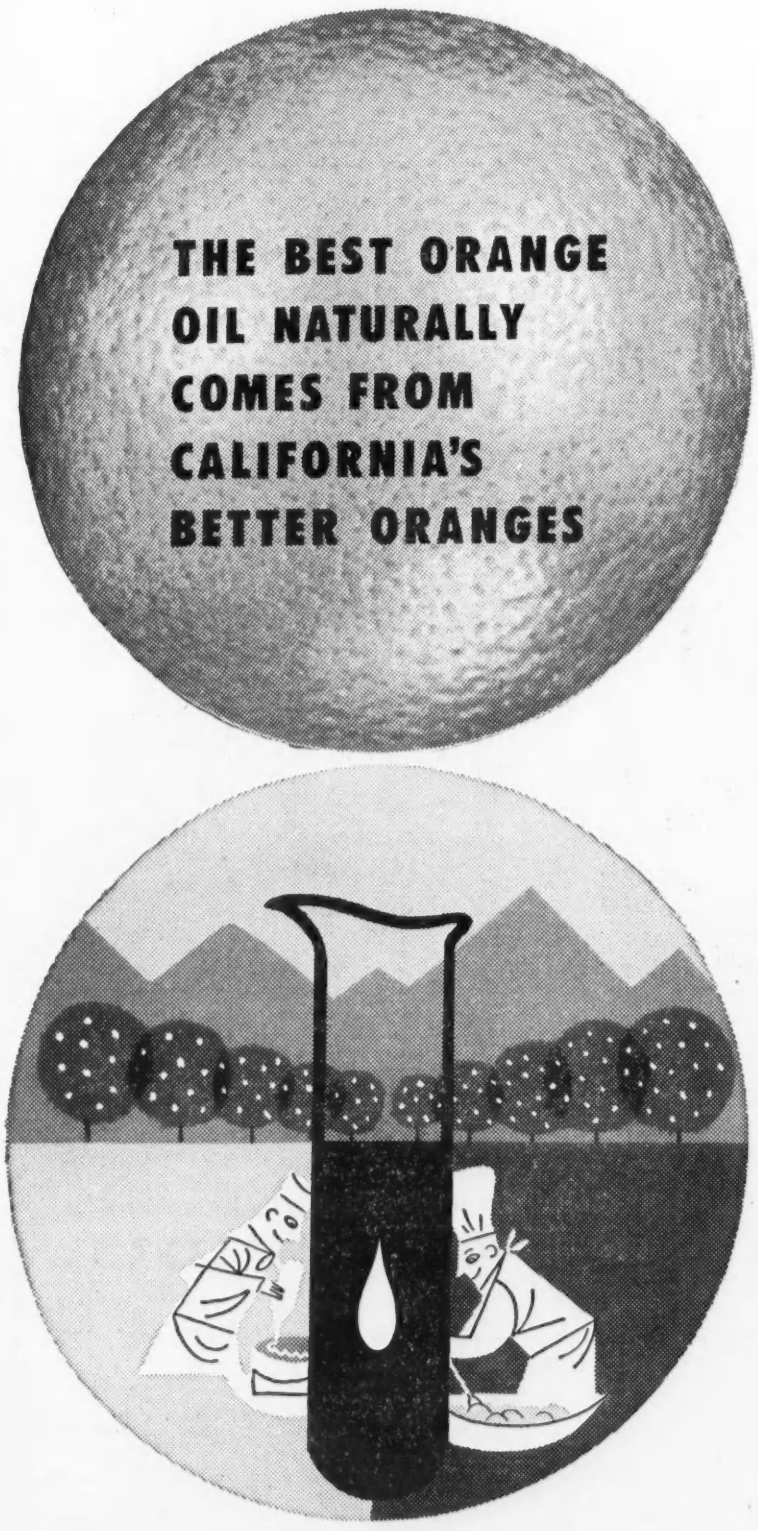
O

Octane, indust., tanks, Bayonne, N. J gal. .19 - —
Baytown, Tex gal. .15¾- —
Borger, Tex gal. .15¾- —
2-Octanol, tech., dms., c.l., dlvd. lb. .35 - —
l.c.l. dlvd lb. .37 - —
tanks, dlvd lb. .32½- —
Octyl phenol, bgs., c.l., works lb. .23¼- —
l.c.l., works lb. .23¾- —
tanks, works lb. .22½- —
Drum prices for octyl phenol are 11c. higher.

(Essential oils prices listed below are f.o.b. New York, with differences between high and low quotations due to differences in quantity, quality or in individual suppliers, views.)

Oil, abies siberica, cns lb. 3.00 - 3.50
Almond, artif., bitter (see Benzaldehyde).
nat., bitter, F.P.A., bots lb. 3.00 - 3.75
NF, bots. lb. 3.25 - 3.75
sweet, USP, dms., cns lb. 1.15 - —
Allspice (see Oil, pimento).
Amyris, dms. lb. 1.25 - —
Angelica root, bots lb. 66.00 -100.00
seed, bots lb. 56.00 - 95.00
Aniline (see A).
Anise, USP, dms lb. 3.15 - 4.00
Apricot, kernel, USP, dms lb. .48 - .55
Avocado, cns. lb. 3.25 - —
Oil, Bay, NF, Puerto Rican, 50-55%, cns lb. 1.90 - 2.75
55-60%, cns. lb. 2.10 - 2.50
West Indian, 50-55%, cns., dms., lb. 1.85 - 2.40
Bergamot, nat., NF, Italian, cns. lb. 8.50 -11.00
Birchtar, crude, cns lb. 1.50 - 1.90
rectified, NF, cns lb. 1.75 - —
Bois de rose, Brazil, dms lb. 3.40 - 3.75
Mexican (see Oil, lignaloe wood).
Bone, dms., works lb. .65 - .70
Cajeput, native, cns lb. 1.75 - 3.30
redist., USP, cns lb. 2.25 - 3.40
Calamus, bots lb. 12.00 -20.00
Camphor, sassafrassy, dms lb. .30 - .45
white, dms lb. .29 - —
Cananga, native, cns lb. 8.45 - —
rectified, cns lb. 10.00 -13.00
Caraway, NF, cns lb. 3.50 - 5.00
Capsicum (see Capsicum oleoreson).
Cardamom, NF, bots lb. 43.00 - —
Cassia, USP (see Oil, cinnamon, USP).
Castor, blown, dms., c.l. lb. .2500- —
l.c.l. lb. .2600- —
dehydrated, bodied, dms., c.l lb. .2610- —
l.c.l. lb. .2710- —
tanks lb. .2410- —
unbodied, dms., c.l. lb. .2460- —
l.c.l. lb. .2560- —
tanks lb. .2260- —
hydrogenated, bgs., c.l., dlvd lb. .25¾- —
l.c.l., dlvd. lb. .31¾- —
No. 3, tech., dms., c.l. lb. .19¼- —
l.c.l. lb. .20¼- —
tanks lb. .17¼- —
No. 1, Brazilian, tanks lb. .18½- —
Oil, castor, USP, dms., c.l. lb. — - —
l.c.l. lb. .2150- —
tanks lb. .1950- —
refd. and deodorized, dms., c.l. lb. — - —
l.c.l. lb. .28½- —
tanks lb. — - —
sulfonated, 50%, dms., works, lb. .13½- .14½
75%, dms., works lb. .17½- .18½
Cedarleaf, USP, XIII, cns., dms. lb. 3.15 - 3.90
Cedarwood, cns., dms lb. .65 - 1.00
Celery seed, bots lb. 12.50 -20.00
Chamomile, blue, Hungarian, bots. lb. 90.00 -180.00
Chenopodium, NF, cns lb. 3.65 - 3.90
Chinawood (see Oil, tung).
Cinnamon, bark, bots lb. 25.00 -70.00
leaf, crude, dms lb. 1.50 - 2.00
USP, cns., dms. (Cassia) lb. 10.25 -10.90
Citronella, Ceylon, cns., dms lb. .95 - —
Java, cns. lb. 1.95 - —
Java-type, cns lb. 2.00 - —
Clove, bud, USP, cns., dms lb. 2.65 - —
leaf, crude, dms lb. 1.20 - 1.50
Coconut, crude, tanks, N. Y lb. .14 - —
Pac. Coast lb. .13 - —
refd., Cochin type, dms., tax incl., l.c.l. lb. .20½- —
deodorized, tax incl., dms., l.c.l. lb. .22½- —
Cod, Newfoundland, dms lb. .11½ Nom.
Codliver, USP, dms gal. 1.45 - 1.55
Copaiba, cns lb. 1.75 - 2.50
Coriander, USP, bots lb. 13.00 -15.00
Corn, crude, tanks, works lb. .16½- —
foots (soapstock), acid 95%, tanks, N. Y. lb. .06⅜- —
refd., salad, dms lb. .22¼- .22¾
tanks lb. .2009- —
Costus, bots oz. 8.00 - —
Oil, cottonseed, crude, tanks, South East lb. .16⅛ Nom.
Valley lb. .16 Nom.
Texas lb. .15⅞- .16
foots (soapstock), acid 95%, tanks, N. Y. lb. .04¼ Nom.
refd., salad, dms lb. .22¼- .22¾
tanks lb. .20 - .20¼
Creosote (see Creosote, coaltar).
Cubeb, cns. lb. 4.10 - 4.25
Cumin, bots., cns. lb. 5.00 - 5.75
Cypress, bots. lb. 5.30 - —
Degras (see D).
Dillseed, bots. lb. 2.80 - 4.25
Dillweed, dom., bots., dms lb. 3.10 - 3.50
Dip (see D)
Erigeron, cns lb. 5.50 - 7.50
Eucalyptus, NF, rectified, 70-80%, dms lb. .70 - 1.05
80-90%, dms lb. .78 - 1.10
Fennel, sweet, USP, cns lb. 2.80 - —
Fir, Canada, cns lb. 2.50 - 3.25
Fish, refd., alkali, dms lb. .1450- .1500
kettle-bodied, dms lb. .1680- .1730
light-pressed, dms lb. .1300- .1350
tanks lb. .1150- —
Fishliver, crude, for feeds or concentrating 4,000 to 12,000 A units per gram, dms., 1,000,000 units. .08 - .09
10,000 to 20,000 A units per gram, dms., 1,000,000 units. .09 - .10
25,000 to 35,000 A units per gram, dms., 1,000,000 units. .09 - .10
40,000 to 55,000 A units per gram, dms., 1,000,000 units. .10½- .11
100,000 A units per gram., dms 1,000,000 units. .14 - —
200,000 A units per gram., dms 1,000,000 units. .15½- —
500,000 A units per gram., dms 1,000,000 units. .16 - —
Prices above are based on the USP XIV method of conversion, Morton Stubbs Corrected E x 1900.
Fusel (see F).
Garlic, pure, bots oz. 4.75 - 9.50
Gaultheria (see Oil, wintergreen).
Geranium, Algerian, cns lb. 12.75 -14.25
Bourbon, cns. lb. 13.00 -14.00
Turkish (see Oil palmarosa).
Ginger, dist., bots lb. 18.50 -19.50
Grapefruit, dms. lb. 1.75 - 3.25
Grease, No. 1, dms lb. .15¼- .18¼
extra, winter, strained, dms lb. .17¼- .20¼
prime, burning, dms lb. .18¾- .21¾
Guaiacwood, cns. lb. 1.65 - —
Hemlock, cns. lb. 2.10 - 2.50
Juniper berry, NF, VIII, bots lb. 2.75 - 4.00
twice rectified, bots lb. 3.60 - 7.00
Tar, NF (see Juniper tar).
Wood, tech., cns. lb. .38 - .55
Lard (see Oil, grease).
Laurel leaf, dms., cns lb. 9.75 -12.50
Lavandin, dms., cns lb. 2.35 - 2.85
Lavender, flower, USP, French 35-37% ester, cns lb. 2.85 - 4.60
38-40% ester, cns lb. 8.50 - 9.50
40-42% ester, cns lb. 8.75 - —
spike, Spanish, cns lb. 1.85 - 2.30
Lemon, USP, Calif., cns., dms lb. 4.65 - 6.00
Messina, cns lb. 5.50 - —
terpeneless, bots. lb. 50.00 - 85.00
Lemongrass, cns., dms lb. 2.25 - —
Lignaloe wood, Mex., cns lb. 4.65 - —
Lime, dist., Mexican, cns lb. 3.25 - 3.75
West Indian, cs lb. 3.25 - 3.75
expressed, West Indian, cns lb. 6.00 - 8.00
terpeneless, bots. lb. 29.50 -100.00
Linseed, raw, dms., c.l., N. Y. lb. .1880- —
l.c.l. lb. .1980- .2030
tanks (f.o.b. Minneapolis) lb. .1550- —
New York lb. .1730- —
tankwagon, New York lb. .1720- .1730
Boiled linseed oil, .006c. per lb. higher.
Mace, dist cns., dms lb. 4.75 - —
Mandarin (see Oil, tangerine).
Menhaden, crude, new crop, tanks, works, Atlantic & Gulf lb. .09⅛- —
Mineral, white (see Oil, white mineral).
Mirbane (see Nitrobenzene).
Mustard seed, nat., dms lb. .17 - .17⅛
syn., bots lb. 1.60 - 1.85
Neatsfoot, 15° cold test, dms lb. .30 - .33
20° cold test, dms lb. .29 - .32
30° cold test, dms lb. .28 - .31
Neroli, NF, French, bots lb. 400.00 - —
Spanish, bots lb. 32.50 - 75.00
Nutmeg, USP, dist., East Indian, cns., dms lb. 4.85 - 5.25
West Indian, cns., dms lb. 4.85 - 5.25
Ocotea cymbarum, dms lb. .50 - .58
Oiticica, liq., dms lb. .17 - .17⅛
tanks lb. .15½- —
Oleo, extra, dms lb. .18 - .18¼
Olibanum, bots lb. 5.50 - 7.65
extra fine, bots lb. 8.00 - 9.00
Olive, edible, Spanish, dms., duty paid gal. 3.50 - 3.70
Orange, sweet, dist., cns. lb. .45 - .80
expressed, USP, Brazilian, cns., dms. lb. No stocks.
Calif., cns., dms. lb. .55 - 1.25
Florida, cns., dms lb. .41 - .50
Messina, cns. lb. 3.85 - 5.85
West Indian, cns., dms lb. 2.50 - 3.65
sesquiterpeneless, bots. lb. 65.00 -120.00
Origanum, Spanish, cns. lb. 2.00 - —
Palm, clarif., dms lb. .1610- .1710
Palmarosa, cns lb. 8.25 -10.00
Paraffin, pale, 100-110 vis., at 100°F, tanks, East Coast refy gal. .14 - —
Patchouli, dms. lb. 6.50 - 8.75
Peach kernel, USP (see Oil apricot kernel).
Peanut, crude, tanks, f.o.b. mills. lb. .16¾- —
refd., dms. lb. .23¼- .24
tanks lb. .20¼- —
Pennyroyal, USP, imported, cns. lb. 2.75 - 3.50
Peppermint, nat., dms lb. 5.75 - —
redist., USP, dms lb. 5.65 - 8.50
Persic, USP (see Oil, apricot kernel).
Petitgrain, South American, cns., dms lb. 3.40 - 3.50
Pimento, berry, NF, dms lb. 4.50 - 5.00
leaf, cns. lb. 2.65 - 3.10
Pine, dest.-dist., dms., l.c.l., works. lb. .12¼- —
ex-whse. lb. .14¼- —
steam-dist.,, dms., ex whse, N.Y.C lb. .163 - —
Pineneedle, Siberian (see Oil, abies siberica).
Rapeseed, tankcars lb. .18¼- —
Red (see Acid, oleic).
Rice, bran, clarif., dms., l.c.l. lb. .17 - —
tanks, dlvd. E. lb. .14½ Nom.
Rose, nat., Bulgarian, bots oz. 43.00 -57.00
Rosemary, Spanish, USP, cns., dms lb. .60 - 1.00
tech., cns., dms lb. .50 - .70
Rue, bots. lb. 2.00 - 2.50
Safflower, dms., c.l., Atl. coast lb. .1900- —
tanks, same basis lb. .1750- —
Sage, clary, bots lb. 18.75 -19.00
Dalmatian, cns. lb. 4.50 - 6.00
Spanish, cns. lb. 1.20 - 1.45
Sandalwood, NF, cns lb. 14.50 -15.80
Sardine, crude, tanks, Pac. coast. lb. .08½- .09
Sassafras, artif., dms lb. .49 - .60
nat., dom., USP, dms lb. 1.45 - 2.10
imp., Brazilian (see Oil ocotea cymbarum).
Savin, cns lb. 2.75 - —
Savory, cns lb. 4.25 - —
Sesame, refd., dms lb. .36 - .37
Shingle stain, tar distillate, dms., c.l., works gal. .35 - —
l.c.l., works gal. .44 - —
tanks, works gal. .23 - —



OIL OF ORANGE, U.S.P.

Flavor is the most important factor in your finished product. Better *orange* flavor naturally comes from *better oranges*, and all tests prove California oranges are richer in flavor strength, more intense in aromatic constituents.

Wherever you use Oil of Orange, be sure your supplier provides Exchange Brand California Oil of Orange. No other oil of orange has the world-wide reputation of Exchange Brand, produced by the people who know citrus best—the Sunkist Growers of California.

Flavor is one of your least expensive ingredients. Doesn't it seem foolish to settle for cheaper, inferior orange oil when flavor is so important yet costs so little? Ask your supplier for Exchange Brand Oil of Orange, with its consistent year-after-year quality and its richer orange flavor.

Exchange

Sunkist Growers

Products Department • Ontario, California

Distributed in the U.S. and Canada by
Dodge & Olcott, Inc., 180 Varick St. New York 14, N.Y.
Fritzsche Brothers, Inc., 76 Ninth Ave. New York 11, N.Y.
Ungerer & Company, Inc. 161 Avenue of the Americas New York 13, N.Y.

Inquiries from countries other than the U.S. and Canada should be directed to the Products Department, Sunkist Growers.

Oil, snakeroot, Canada, cns. lb. 27.50 - 31.00
Soybean, crude, tanks, Decatur.
Soybean, crude, tanks, Decatur. lb. .15¾- —
foots soapstock, acid, 95% tanks. N. Y. lb. .07⅝- —
refd., alkali, dms. lb. .2070- .2100
tanks lb. .1870- —
clarified, dms. lb. .2020- .2050
tanks lb. .1820- —
salad, dms. lb. .21 - .21½
tanks lb. .1900- —
Sperm, bleached winter, 45° dms. lb. .1675- .1725
tankcars lb. .1500- —
nat., winter, 45°, dms. lb. .1575- .1625
tankcars lb. .1400- —
Spruce, cns., dms. lb. 2.10 - 2.75
Sweet birch USP Northern, cns. lb. 4.25 - 9.50
Southern cns lb. 2.50 - 3.00
Tall, crude, dms., c.l., works lb. .03⅝- .04¼
tanks, works lb. .02½- .03
dist., dms., c.l., works lb. .07½- —
l.c.l., works lb. .07¾- —
tanks, works lb. .06¼- —
refd., dms., c.l., works lb. .06½- .06¾
l.c.l., works lb. .06¾- .07¾
tanks, works lb. .05¼- .05¾
Tallow, acidless, dms. lb. .13½- .16½
Tangerine, Floridian, dms. lb. 2.00 - 2.80
Tansy, dms lb. 7.50 - 8.40
Tar acid (see T's).
Pine, coml., dms., c.l., works lb. .0561- —
l.c.l., works lb. .0634- —
whse lb. .0745- —
tanks works lb. .046 - —
rectified NF, drms. incl., l.c.l., works, South gal. 1.05 - —
ex whse., N. Y. C gal. 1.15 - —
refined, dms., works, l.c.l., incl. gal. .92 - —
N. Y. whse., l.c.l. gal. 1.02 - —
Theobroma (see Cocoa butter).
Thyme, NF, red, cns., dms. lb. 1.80 - 2.00
white, cns lb. 1.95 - 4.00
tech. white cns lb. 40 - 1.85
Tung, dms., c.l., N. Y. lb. .25 - —
l.c.l., same basis lb. .25½- .26
tanks, N. Y. lb. .23¼- .23½
domestic mills lb. .23¼- —
Turkey red (see Oil, castor, sulfonated).
Turpentine, NF cns., dms. lb. .28 - .45
Vetiver, Bourbon, cns. lb. 13.00 - 15.75
Haitian, cns. lb. 9.80 - 11.75
Java, cns lb. 18.50 - 20.00
Wheat, germ; 5-gal. dms. gal. 11.20 - —
White mineral, tech., 50-65 vis., non-ret. dms. c.l., f.o.b. N. Y. gal. .51½- .54½
65-75 vis., non-ret., dms., c.l., same basis gal. 52½- .55
l.c.l., same basis gal. .57½- .58½
80 90 vis., non-ret., dms., c.l., same basis gal. .53½- .56½
l.c.l. same basis gal. .58½- .59½
135-138 vis., non-ret. dms., c.l., same basis gal. .59½- .62½
l.c.l., same basis gal. .64½- .65½
145-155 vis., non-ret. dms., c.l., same basis gal. .66 - .69½
l.c.l., same basis gal. .71 - .71½
175-185 vis., non-ret. dms., c.l., same basis gal. .69½- .73
l.c.l., same basis gal. .74½- .75
USP, 200-210 vis., non-ret., dms., c.l., same basis gal. .73½- .75
l.c.l., same basis gal. .77½- .78
345-355 vis. non-ret. dms., c.l., same basis gal. .77 - .80
l.c.l., same basis gal. .83 - .85
Wintergreen, USP, nat., Northern, cns. lb. 6.35 - 10.30
Southern cns lb. 3.20 - 19.50
syn. (see Methyl salicylate).
Wood (see Oil, tung).
Wormseed (see Oil, Chenopodium, NF).
Wormwood, cns. lb 5.00 - 6.85
Ylang-ylang, Bourbon, bots. lb. 17.00 - 30.00
extra, bots lb. 28.00 - 40.00
Madagascar, bots lb. No stocks
Oleostearine, bbls. lb. .13½- .14
Opium, USP, cns oz. 19.20 - 19 45
gran., USP, cns oz. 21.65 - 21.90
powd. USP cns oz. 21.65 - 21.90
Orange cadmium-selenide lithopone, light shade, bbls., frt. alld. E. of Rockies lb. 1.80 - —
Deep shade, bbls lb. 2.00 - —
Cadmium-Mercury lithopone, deep shade, bbls lb. 1.78 - —
Chrome, CP, bbls., dlvd. N. of Tennessee and N.C., E. of Miss. R., include Davenport, Tenn., and E. of Minneapolis, Rock Island, St. Louis, St. Paul lb. .33 - .33½

Chrome orange prices are ½c. higher, dlvd. Ala., Fla., Ga., La. (Shreveport); 1½c. Miss., N. C., S. C., Tenn., Dallas and Ft. Worth, Tex., El Paso, Tex.; 2c. Cedar Rapids, Des Moines, Kansas City, Lincoln, Omaha, St. Joseph; 1.6c. higher dlvd. Pac. Coast for Denver, Pueblo, Salt Lake City, Wichita prices are equalized with Chicago.

Dinitroaniline toner, CP lb. 1.45 - —
Mineral, American, bbls., l.c.l., works lb. .2160- —
Molybdated, bbls. lb. .46 - .46½
o-Nitroaniline toner, kegs. lb. 1.15 - —
Orange peel, bitter, Haitian, bls lb. .14 - .18
sweet, bls. lb. .16 - .18
Orris root, Florentine, bls. lb. .45 - .50
powd., bbls., bxs. lb. .50 - .53
Verona, bls. lb. .35 - .40
powd., bbls., bxs. lb. .40 - .45
Orthoaminobiphenyl (see o-Aminobiphenyl)
Orthoanisidin (see o-Anisidine).
Orthochloroanilin (see o-Chloroaniline).
Orthochlorobenzaldehyde (see o-Chlorobenzaldehyde).
Orthochloroparanitroanilin (see 2-Chloro-4-nitroaniline).
Orthochlorophenol (see o-Chlorophenol).
Orthocresol (see o-Cresol).
Orthodichlorobenzene (see o-Dichlorobenzene).
Orthonitroanilin (see o-Nitroaniline).
Orthonitrochlorobenzene (see o-Nitrochlorobenzene).
Orthonitrobiphenyl (see o-Nitrobiphenyl).
Orthonitroparachlorophenol (see 2-Nitro-4-chlorophenol).
Orthonitrophenol (see o-Nitrophenol).
Orthonitrotoluene (see o-Nitrotoluene).
Orthophenetidin (see o-Phenetidine).
Orthophenylphenol (see o-Phenyl phenol).
Ortho-tertiary-amylphenol (see o-tert-Amylphenol).
Orthotolidin (see o-Tolidine base).
Orthotoluidin (see o-Toluidine).
Osage, orange, cryst., No. 1, bbls. l.c.l. lb. .40 - —
extract, liq., No. 1, bbls., l.c.l., lb. .19 - —
Ouabain, USP, bots gram. 3.00 - 4.00
Oxyquinolin sulfate, cns., 100-lb. lots, works lb. 4.75 - 5.00
smaller lots, works lb. 4.92 - 5.17

P

Papain, USP, African, bots. lb. 3.50 - 4.00
Ceylon lb. 3.00 - 3.50
Papaverine, nat. or syn. hydrochloride, USP, cns., 25-oz. to 100-oz. lots oz. 5.00 - —
smaller lots oz. 5.05 - 5.20
Sulfate, cns. oz. 7.10 - 7.35
Paprika, Roumanian, bgs. lb. .26 - —
Spanish, bgs. lb. .34 - —
Yugoslavian, bgs. lb. .33 - —

Para-aminophenol (see p-AminophenoD.
Para-anisidin (see p-Anisidine).
Parachloranilin (see p-Chloraniline).
Parachloro-orthonitroanilin (see 4-Chloro-2 nitroaniline).
Parachlorobenzaldehyde (see p-Chlorobenzaldehyde).
Parachlorophenol (see p-Chlorophenol).
Paracresol (see p-Cresol).
Paradibromobenzene (see p-Dibromobenzene).
Paradichlorobenzene (see p-Dichlorobenzene).
Paraffin, crude, scale, white, 123°-127°F, ASTM, solid, c.l., refy lb. .0750- —
fully refd., 122°-124°F, ASTM, c.l., refy lb. .0905- —
125°-127°F, ASTM, slabs, loose, c.l., refy lb. .0905- —
130°-132°F, ASTM, slabs, loose, c.l., refy lb. .0905- —
132°-134°F, ASTM, c.l., refy lb. .0905- —
135°-137°F, ASTM, slabs, loose, c.l., refy lb. .0905- —

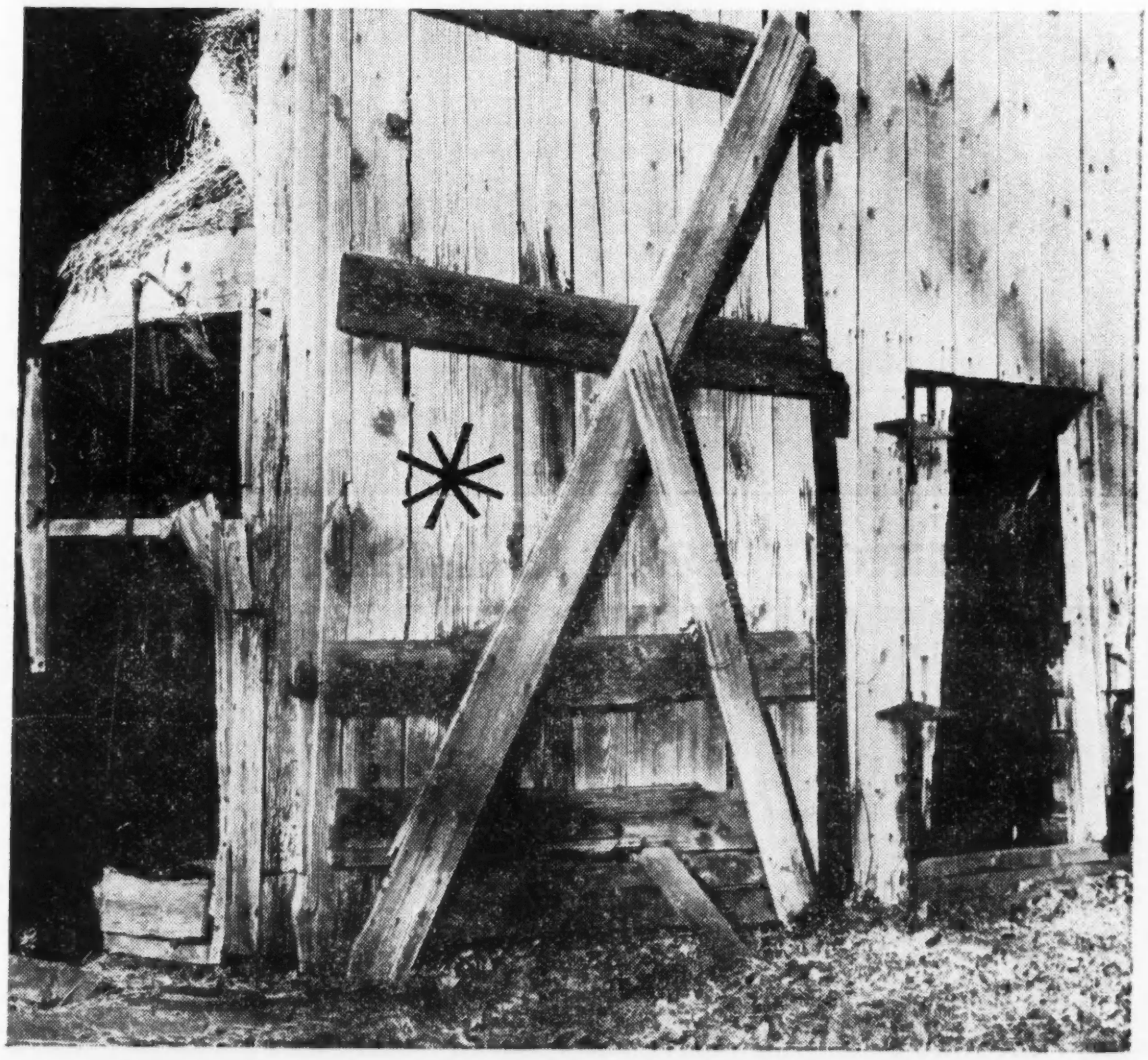
Prices for paraffin in bags and ctns., c.l., 7/10c. per lb. higher; 1,000 to 9,999 lbs., 2.7c. per lb. higher and under 1,000 lbs. 3.7c. per lb. higher.

AMP temperatures are an arbitrary 3°F higher than ASTM.

Paraformaldehyde, 91%, flake, bgs., c.l., frt. alld lb. .1075- —
l.c.l., frt. alld lb. .1275- .1375
powd., bgs., c.l., frt. alld lb. .15½- —
l.c.l., frt. alld lb. .17 - —
USP, X, fib. dms., c.l. lb. .183 - —
1,000-lb. lots lb. .193 - —
smaller lots lb. .208 - —
Paraldehyde, tech., 98%, 55-gal. dms., c.l., works lb. .13½- —
l.c.l., works lb. .14½- —
tanks, works lb. .11½- —

Paranitroanilin (see p-Nitroaniline).
Paranitrochlorobenzene (see p-Nitrochlorobenzene).
Paranitrotoluene (see p-Nitrotoluene).
Paranitrophenol (see p-Nitrophenol).
Paraphenetidin (see p-Phenetidine).
Paraphenylenediamine (see p-Phenylenediamine).
Paraphenylphenol (see p-Phenylphenol).
Para-tertiary-amylphenol (see p-tert-Amylphenol).
Para-tertiary butylphenol (see p-tert-Butylphenol).
Parathion, spray powder, 15%, dealers, dms., bgs., frt. alld lb. .50 - .53
tech., dms., c.l., t.l., works lb. 1.3395- —
l.c.l., works lb. 1.51 - —
Paratoluenesulphonamide (see p-Toluenesulfonamide).
Paris green, dealer, dms., c.l., frt. alld lb. .44 - .47
l.c.l., same basis lb. .45 - .48
Passion flower herb, bls. lb. .20 - .21
Peanut meal, 45%, old process, bgs., mills ton 60.00 - —
Pectin, citrus, NF, powd., bbls lb. 2.05 - 2.06
tech., powd., bbls. lb. 1.25 - —
imported, Danish, ex whse lb. 1.28 - —
Penicillin, crystalline, potassium, sterile, bulk, 1,000,000 units. .0475- .0520
Procaine, bulk 1,000,000 units. .0475- .0520
Sodium, sterile, bulk, 1,000,000 units. .0475- .0520
Pentachlorophenol, dms., c.l., t.l., works, frt. equald lb. .21 - —
l.c.l., same basis lb. .22½- .29

Pentaerythrital, tech., bgs., c.l., works lb. .32 - —
l.c.l., works lb. .33 - —
Di- and tri-isomers (see Dipentaerythritol and Tripentaerythritol).
Pentane, indust., tanks., Tex. refy. gal. .13 - —
Pepper, black, Malabar, spot, bgs lb. .28 - —
red, Gondar, spot, bgs. lb. No prices.
Japanese, hontaka, bgs. lb. .33 - .34
birdseyes, bgs., new crop lb. No prices.
Mombasa, bgs., shipt. lb. .65 - —
Nigerian, bgs. lb. .29½- —
Turkish, bgs. lb. .28 - —
white, bgs. lb. .37 - —
Peppermint leaves, USP, dom., bls., dms lb. .70 - .75
imp., bls. lb. 1.10 - —
Perchloroethylene, dms., c.l., or truckloads, dlvd. E lb. .12½- —
l.c.l., dlvd. E. lb. .14 - —
tanktruck, 1,000 gal., min. dlvd. E. lb. .11½- —
tanks, dlvd. E. lb. .11 - —
dlvd. W. lb. .11½- —
Peru balsam, dms. lb. 1.50 - 1.75
Petrolatum, amber, dms., c.l., refy. lb. .06 - .06¾
l.c.l., dlvd. lb. .07⅝- .08
tanks, refy. lb. .08¼- .05½
cream, dms., c.l., refy lb. .07⅛- .08⅛
l.c.l., dlvd. lb. .09½- .09¾
tanks, refy. lb. .05⅜- .06⅜
extra amber, dms., c.l., refy lb. .06¼- .06⅞
l.c.l., dlvd. lb. .08 - .08¼
tanks, refy. lb. .04½- .05⅜



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■ Water-repellent solutions made with RCI Pentachlorophenol protect lumber investments against decay and termite attack . . . keep wood dimensionally stable . . . reduce its tendency to crack or check.

Wood protected by RCI Penta solutions is clean, easy to handle . . . lasts up to 4 times as long as untreated lumber.

Penta treatment is proven. For years it has helped keep down expenses for light and power companies, railroads, highway departments by deferring wood replacement . . . cutting wood maintenance costs.

If you're currently engaged in, or are considering, the manufacture of wood preservative solutions, fungicides, bactericides, algicides, or herbicides . . . or the penta treating of lumber, we invite you to consider Reichhold as a source of supply for pentachlorophenol . . . now being produced by RCI's Pacific Northwest Division in Seattle.

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Synthetic Resins • Chemical Colors • Industrial Adhesives • Plasticizers
Phenol • Formaldehyde • Glycerine • Phthalic Anhydride • Maleic Anhydride
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REICHHOLD CHEMICALS, INC.,
RCI BUILDING, WHITE PLAINS, N. Y.

Creative Chemistry . . .
Your Partner in Progress

Petrolatum—Pitch

Petrolatum, USP, white, lily, dms., c.l., refy. lb. .07¾- .08¼
l.c.l., dlvd. lb. .09⅜- .10⅛
tanks, refy. lb. .05⅞- .07
snow, dms., c.l., refy. lb. .08½- .08¾
l.c.l., dlvd. lb. .10¾- .10⅝
tanks, refy. lb. .06⅜- .06⅞
soft, dms., c.l., refy. lb. .07¾- .08¾
l.c.l., dlvd. lb. .09½- .09¾
tanks, refy. lb. .05¼- .06⅞
yellow, soft, dms., c.l., refy. lb. .06¼- .06¾
l.c.l., dlvd. lb. .07⅞- .08⅛
tanks, refy. lb. .04½- .06⅞

Petroleum, lacquer diluent, 150°-240°F, b.r., tanks, West Coast, ex tax, Los Angeles. gal. .160 - .204
East coast, N. J., N. Y. gal. .19 - —
Group 3, benzol-type gal. .14125- .14625
toluol-type gal. .13125- .13375

Mineral spirits, reg., tanks, Calif., ex tax, San Francisco gal. .164 - —
East coast, N.J., N.Y gal. .17 - —
Group 3 gal. .11875- —
tankwagon, Boston gal. .19 - —
Buffalo gal. .195 - —
Chicago gal. .279 - —
Cleveland gal. .22 - —
Newark gal. .18 - —
New York gal. .18 - —
Philadelphia gal. .185 - —
Pittsburgh gal. .18 - —
Providence gal. .195 - —

Petroleum, mineral spirits, odorless, tanks, refy., Watson, Cal. gal. .245 - —
Borger, Tex. gal. .24 - —
Houston, Tex. gal. .24 - —
Wood River, Ill. gal. .2625- —
dlvd. N. J. gal. .32 - —
dlvd. N. Y. gal. .33½- —
tankwagon, N. J., dlvd. gal. .36 - —
N. Y., dlvd. gal. .37 - —

Naphtha, cleaners, tanks, East Coast, N. J., and N. Y. gal. .17 - —
Group 3 gal. .12875- —
tankwagon, Newark gal. .18 - —
New York gal. .18 - —
Philadelphia gal. .185 - —

High solvency (see Petroleum solvent, partial aromatic).

VM&P, 225°-300°F., b.r., tanks, West Coast, Los Angeles gal. .169 - —
Portland, Ore. gal. .175 - —
San Francisco gal. .174 - —
Seattle, Wash. gal. .175 - —

225°-300°F, b.r., tanks, East Coast, N. J. and N. Y. gal. .18 - —
Group 3 gal. .12875- —
tankwagon, Boston gal. .205 - —
Chicago gal. .289 - —
Cleveland gal. .23 - —
Newark gal. .195 - —
New York gal. .195 - —
Philadelphia gal. .20 - —
Pittsburgh gal. .19 - —

Petroleum solvent, partial aromatic, tanks, 205°-262°F., b.r., 41°C., m.a.p., N. Y., N. J. gal. .245 - —
212°-278°F. b.r., 43°C. m.a.p., N. J. gal. .16 - —
212°-284°F. b.r., 19°C. m.a.p., N. J. gal. .20 - —
224°-280°F., b.r., 48°C, m.p.a., Houston gal. .215 - —
273°-361°F. b.r., 29°C. m.a.p., N. J. gal. .29 - —
282°-325°F. b.r., 41.5°C. m.a.p. Houston gal. .25 - —
287°386°F., b.r., 31°C., m.a.p., N. J. gal. .29 - —
310°-344°F., b.r., 13.5°C, m.a.p., Texas City gal. .33 - —
310°-348°, b.r., 17°C., m.a.p., N. Y., N. J. gal. .35 - —
320°-360°F., b.r., 16°C., m.a.p., N. Y., N. J gal. .33 - —
324°-349°F, 37°C., m.a.p., Houston gal. .33 - —
341°-390°F., b.r., 35°C., m.a.p., N. J gal. .27 - —
352°-413°F., b.r., 30°C., m.a.p. Houston gal. .33 - —
358°-401°F., b.r., 25°C., m.a.p., N. Y., N. J. gal. .39 - —
364°-404°F b.r., 19°C. m.a.p., N. Y., N. J gal. .425 - —
367°-418°F. b.r., 19.6°C. m.a.p., N. Y., N. J gal. .33 - —

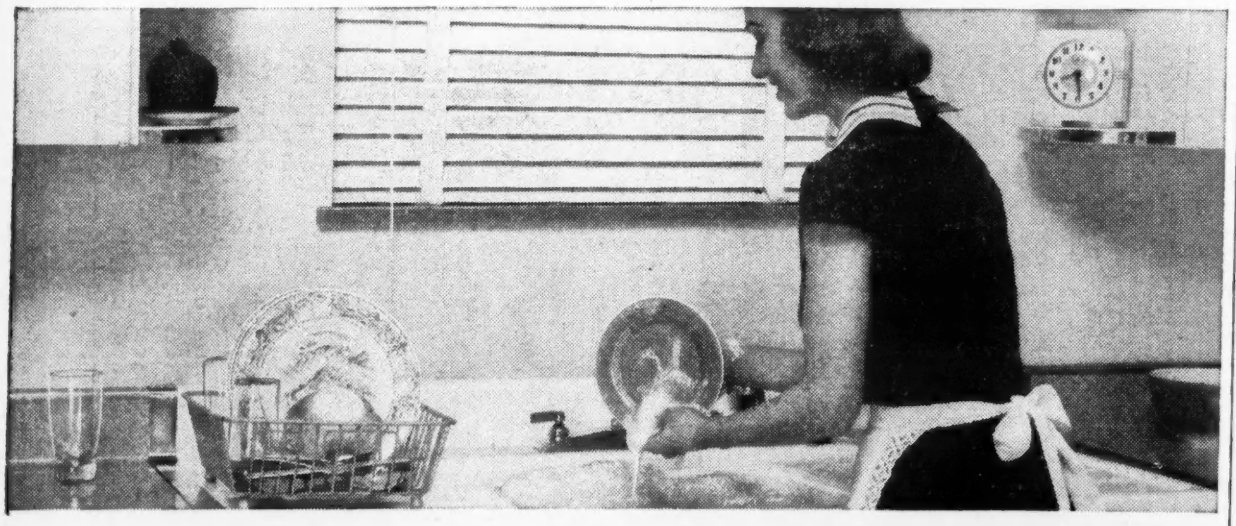
rubber, tanks, Cal., ex tax, San Francisco gal. .173 - —
East Coast, N. J., N. Y., gal. .18 - —
Group 3 gal. .12875- —

Stoddard, tanks, East Coast, N. J., N. Y. gal. .17 - —
Group 3 gal. .12375- —
Pennsylvania, western gal. .15 - —

Petroleum stoddard, tanks, East Coast,
Boston gal. .19 - —
Chicago gal. .289 - —
Cleveland gal. .22 - —
Los Angeles, ex tax gal. .194 - —
Newark gal. .18 - —
New York gal. .18 - —
Philadelphia gal. .185 - —
Pittsburgh gal. .18 - —

Sulfonate, oil soluble, 60-62% sulfonic content, non-ret. dms., c.l., works lb. .16½- .18¾
l.c.l., works lb. .17½- .19
tanks, works lb. .14½- .17
50-55% sulfonic content, non-ret, dms., c.l., works lb. .16 - —
l.c.l., works lb. .17 - —
tanks, works lb. .13 - —

o-Phenetidine, dms., works lb. 1.00 - —
p-Phenetidine, dms., works lb. 1.00 - —
Phenobarbital, USP, dms., 100-lb. lots lb. 3.50 - —
Phenobarbital-sodium, USP, dms., 100-lb. lots lb. 3.50 - —
Phenol, 90-92% (cresol 8-10%), non-ret. dms. c.l. frt alld E. of Rockies lb. .16¾- —
l.c.l., same basis lb. .17½- —
tanks, same basis lb. .15 - —
82-84% (cresol 16-18%), non-ret. dms., c.l., same basis lb. .16¼- —
l.c.l., same basis lb. .17 - —
tanks, same basis lb. .14½- —
39°C or above, tar distilled, non-ret. dms., c.l., same basis. lb. .18¼- —
l.c.l., same basis lb. .19 - —
tanks, same basis lb. .16½- —
USP, syn., dms., c.l., frt. alld lb. .18¾- —
1,000-lb. lots or more, same basis lb. .19½- —
less than 1,000-lb. lots, same basis lb. .20½- —
tanks, same basis lb. .17 - —
Phenolphthalein, USP or yellow, bbls., dms., 2,000-lb. lots. lb. 1.10 - —
smaller lots lb. 1.12 - 1.17
Phenothiazine, N.F. fib. dms., c.l., frt. adjusted lb. .39 - —
over 2,100 lbs., same basis lb. .41 - —
less than 2,100 lbs., same basis. lb. .43 - —
Phenyl acetate, dms., 100-lb. lots, works lb. .50 - —
Salicylate (see Salol.)
Phenylacetaldehyde, soln., 50%, bots lb. 2.40 - 2.70
100%, bots lb. 4.00 - 4.65
Phenylacetamide, 125-lb. dms., works lb. 1.10 - —
smaller dms., works lb. 1.15 - 1.10
dl-Phenylalanine, dms., works lb. 27.00 - 37.50
1-Phenyl-3-carbethoxy pyrazolone-5, 250-lb. fib. drms., dlvd. E lb. 3.60 - —
smaller dms., dlvd. E lb. 4.00 - —
N-Phenyldiethanolamine, dms., c.l., dlvd. E lb. .40½- —
l.c.l., dlvd. E lb. .41½- —
tanks, dlvd. E lb. .38½- —
m-Phenylenediamine, dms., frt. alld. lb. 95 - —
o-Phenylenediamine, coml., 100 to 1,000 lbs., fib. dms., works lb. 1.70 - 1.80
p-Phenylenediamine, tech., refd., dms., works lb. 1.42 - —
Phenylethanolamine, d m s., c.l., works lb. .75½- —
l.c.l., same basis lb. .76 - —
Phenylethyl acetate, bots lb. 1.30 - —
b-Phenylethylamine, dms., 1,000-lb. lots, works lb. 1.10 - —
smaller lots, works lb. 1.15 - 1.40
Phenylhydrazine base, CP, bots lb. 3.00 - 3.07
Hydrochloride, coml., kgs., works. lb. 1.75 - —
purif., bots., works lb. 5.17 - —
1-Phenyl-3-methyl pyrazolone-5, 250-lb lots, dlvd. E lb. 1.80 - —
smaller lots, dlvd lb. 2.10 - —
Phenylethylphenyl acetate, bots lb. 3.95 - 4.40
o-Phenylphenol, dms., l.c.l., works. lb. .42 - .44
p-Phenylphenol, bgs., c.l., works lb. .35 - —
l.c.l., works lb. .39½- —
Phloroglucinol, coml., fib. dms., works lb. 6.40 - —
C.P., bots., works lb. 17.75 - —
tech., fib. drums., works lb. 10.45 - —
Phosphate, defluorinated (see under D).
Rock, Curacao, Atlantic ports, New Orleans ton. 45.00 - —
Florida, land pebble, run-of-mine, washed, dried unground, bulk, c.l., mines, 68-66%, b.p.l., bulk, c.l., mines long-ton. 4.81 - 4.82
70-68%, b.p.l., c.l., same basis long-ton. 5.21 - 5.22
72-70%, b.p.l., c.l., same basis long-ton. 5.87 - —
75-74%, b.p.l., c.l., same basis long-ton. 6.87 - —
78-76%, b.p.l., c.l., same basis long-ton. 7.87 - —
The Florida prices (above) are based on fuel oil at $2.47 per bbl. and labor at $1.39. Recent labor advance currently absorbed.
Phosphorus, amorph., red, dms., c.l., works lb. .43 - —
smaller lots, works lb. .44 - .45
white (yellow), solid, dms., c.l., works, frt. equald lb. .20 - .20¼
l.c.l., works, frt. equald. lb. .21½- —
tanks, works, frt. equald. lb. .19 - —
Oxychloride, dms., c.l., works lb. .14 - —
l.c.l. works lb. .15 - —
tanks, works lb. .12½- —
Pentasulfide, solid, dms., c.l., works lb. .11½- —
l.c.l., works lb. .12½- —
Pentoxide, dms., c.l., works lb. .13½- —
l.c.l. works lb. .16½- —
Sesquisulfide, tins, c.s., works lb. .29 - —
export, dms. lb. .31 - .36
Trichloride, dms., c.l., works lb. .14 - —
l.c.l., works lb. .15 - —
tankcars, works lb. .12½- —
Phthalic anhydride, ogs, c.l., works, frt. equald lb. .20 - —
l.c.l., same basis lb. .21 - —
tanks, same basis lb. .19¼- —
Phthalimide, 97%-98%, dms., frt. equald lb. .65 - —
Phthalylsulfacetamide, 1,000-lb. lots or more lb. 5.00 - —
a-Picoline, ret. dms., c.l., works, frt. equald. lb. .43 - .43¼
l.c.l., works, frt. equald lb. .44 - —
tanks, same basis lb. .415 - .423
b,g-Picoline, 5°C, dms., c.l., works. lb. .32½- —
l.c.l., works lb. .33 - —
g-Picoline, 98%, dms., works lb. 2.00 - —
Pilocarpine hydrochloride, USP, bots. oz. 4.75 - 5.25
Nitrate, USP, bots., vials oz. 4.65 - 4.75
Pimento, Jamaican, bgs lb. .84 - —
Mexican, bgs. lb. .58 - —
Pink root, bls. lb. 2.00 - 3.25
d-Piperazine hexahydrate, French Codex, bots kilo. 8.00 - 8.50
Piperidine, dist., dms., frt. equald. lb. 2.60 - 2.70
Piperonyl butoxide, dms., dlvd. E. lb. 4.50 - 5.05
Cyclonene, dms., dlvd. E lb. 3.70 - 4.25
Pitch, coaltar, 150°-170°F. m.p., tanks, works ton. 37.00 - —
Cottonseed, raw, dms., works lb. .02¼- .03
Linseed, dms lb. .06 Nom.
Marine, dms. lb. .04¼- .05
Petroleum (see Asphalt, petroleum).
Soybean, dms., works lb. .05 Nom.
Tall, dms., works lb. .03¾- .04½



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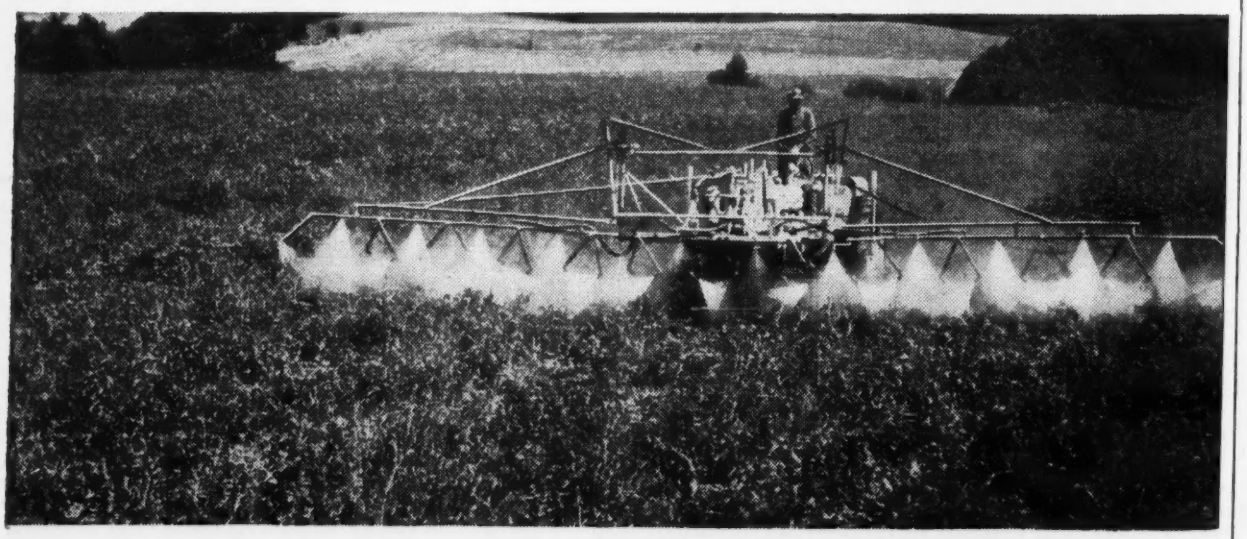

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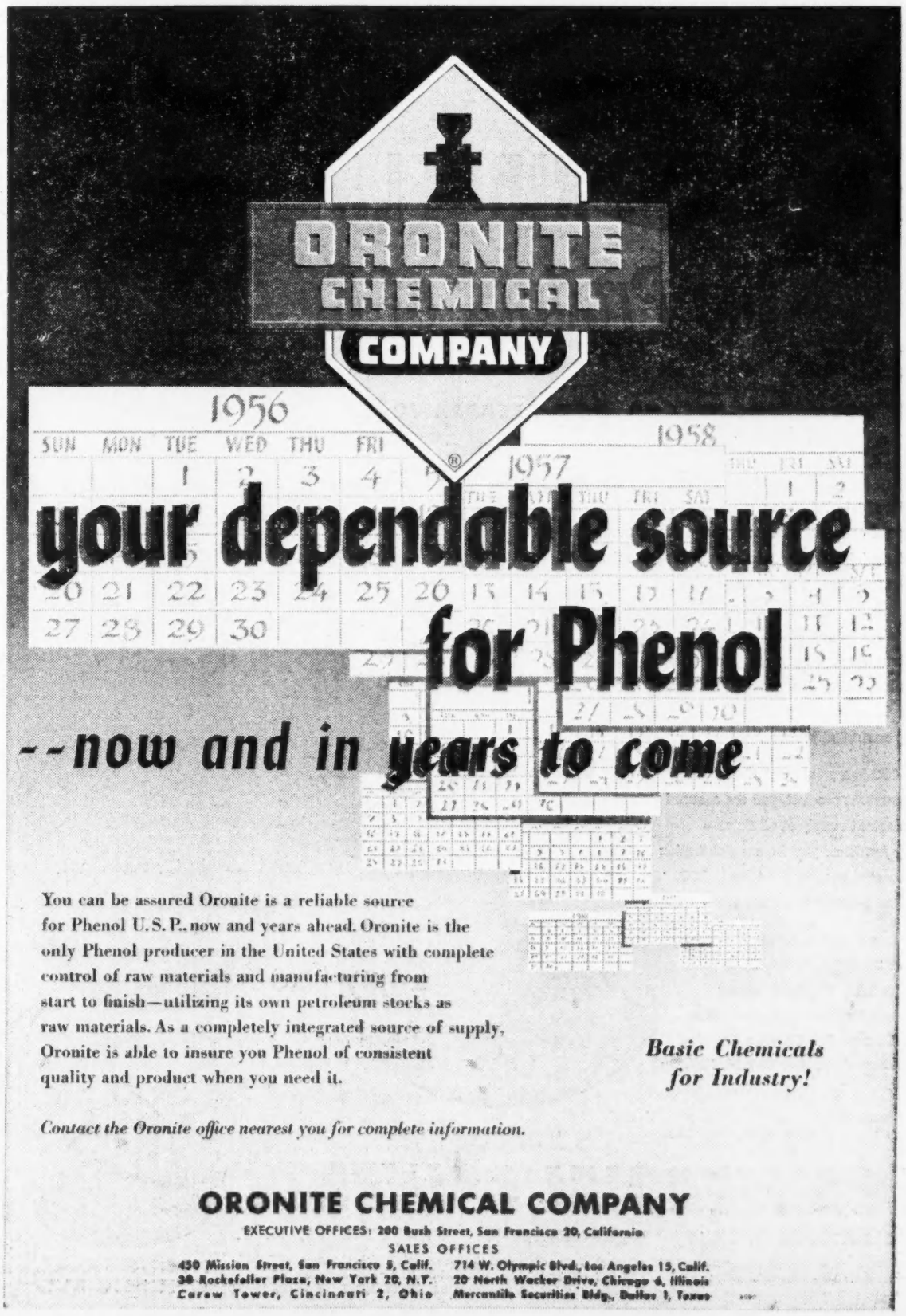
Plaster of Paris (see Gypsum).
Platinum metal, works ..... oz. 97.00 - 107.00
Pleurisy root, bls ..... lb. .45 - .50
Podophyllum resin, NF, dms ... lb. 15.60 - —
Poke root, bls ..... lb. .19 - .22
Polymyxin, bulk, bots., dms., 50 billion units or more, 1,000,000 units. .52 - —
25-50 billion units 1,000,000 units. .54 - —
1-25 billion units 1,000,000 units. .56 - —
Polyoxyethylene sorbitan monostearate dms. 20,000-lb. lots, works lb. .41 - —
10,000-20,000 lb. lots, works, lb. .41 - —
smaller lots, works lb. .43 - —
smaller lots works lb. .46 - .48
tristearate, dms., 20,000 lb. lots, 10,000-20,000 lb. lots, works, lb. .41 - —
smaller lots, works lb. .43 - —
smaller lots works lb. .46 - .48
Poppy seed, Argentine, bgs ..... lb. .21 - —
Dutch, bgs. ..... lb. .23 - —
Iranian bgs. ..... lb. .15 - —
Polish, bgs. ..... lb. .22 - —
Turkish, bgs. ..... lb. No prices.
Potash caustic reg. flake, 68-92% dms., c.l., works 100 lbs. 9.15 - —
l.c.l., works 100 lbs. 10.20 - —
liq., 45% basis, dms., c.l., works 100 lbs. 4.25 - —
l.c.l., same basis 100 lbs. 5.05 - —
tanks, same basis 100 lbs. 3.70 - —
solid, 88-92%, dms., c.l., works 100 lbs. 8.70 - —
l.c.l. works 100 lbs. 9.75 - —
Potassium acetate, NF, dms lb. .31 - .38
Bicarbonate, USP, gran., dms lb. .22 - —
powd. dms lb. .24 - —
Bichromate, bgs., c.l., works lb. .16½ - —
l.c.l., works lb. .17 - —
Potassium bichromate in dms 5c higher.
Bitartrate, NF, dom., gran. or powd., bbls., 5,000 lbs., 1 ship't lb. .38½ - —
dms., c.l. lb. .36 - —
smaller lots lb. .39 - .42
imp. kgs. lb. .29 - —
Bromate, dms., 1,000 lbs. or more, lb. .50 - —
25-200 lb. lots lb. .52 - .62
Bromide, USP, gran., bbls., kgs. lb. .35 - .36
Carbonate, NF, gram., bbls., dms, lb. .20 - —
powd., bbls., dms lb. .21 - .22
tech., calcined, bbls., c.l., works, 100 lbs. 9.00 - —
l.c.l. same basis 100 lbs. 10.05 - —
hydrated 83-85%, bbls., c.l., works 100 lbs. 7.60 - —
l.c.l., works 100 lbs. 8.65 - —
Chlorate, cryst., dms., c.l., works, lb. .10¼ - —
l.c.l., works lb. .10½ - .11½
powd., dms., c.l., works lb. .10¾ - —
l.c.l., works lb. .11 - .12
NF, gran., 25-lb. metal dms lb. .35 - —
Chloride, agricultural (see Potassium muriate).
industr., 99.9% KCl, bulk, c.l., works ton. 28.00 - —
bgs., c.l., works ton. 32.25 - —
99.3% KCl, bulk, c.l., works, ton. 26.00 - —
bgs., c.l., works ..... ton. 30.40 - —
USP, cryst., dms ..... lb. .21 - .23
gran., dms ..... lb. .15 - .17
powd., dms ..... lb. .24 - .26
Chromate, tech., bgs ..... lb. .50 - .50½
Citrate, USP, gran., dms .... lb. .41 - —
powd., dms lb. .40½ - .41½
Cyanide, dms., 20,000-lb. lots or more, works lb. .45 - —
2,000-19,999-lb. lots, works lb. .455 - —
smaller lots, works lb. .465 - —
Dichromate (see Potassium bichromate).
Ferricyanide, dms., ton lots lb. .50 - —
Ferrocyanide, bgs., ton lots ... lb. .22½ - —
smaller lots ..... lb. .23 - —
Fluoborate, fib, dms., c.l., works lb. .30 - —
l.c.l., works ..... lb. .31 - —
Fluoride, dms., works ..... lb. .37 - .38
Gluconate, dms. ..... lb. 1.60 - —
Guaiacolsulfonate, NF, dms ... lb. 2.10 - 2.30
Hydroxide, tech. (see Potash caustic).
USP, pellets 100-lb. dms. 1 to 100-dm. lots lb. .28½ - .33
Hypophosphite, NF, fib, dms., ton lots or less lb. 1.00 - 1.03
Iodide, dms ..... lb. 1.90 - 1.95
Manure salt, 22% K_2O, base price, unit-ton. .17 - .1765
July forward unit-ton. .38 - —
Metabisulfite, gran. dms ... lb. .20 - .21
powd. dms lb. .25 - —
Muriate, 59-63% K_2O, bulk, c.l., works, base price unit-ton. .36 - —
July forward unit-ton. .38 - —
39-63% K_2O_2, bgs., c.l., works, base price ton. 26.00 - —
July forward ton. 27.20 - —
Nitrate, cryst., bbls., 20-ton lots, 100 lbs. 14.40 - —
smaller lots 100 lbs. 14.65 - 14.90
gran., bbls., 20-ton lots. 100 lbs. 9.75 - —
smaller lots 100 lbs. 11.10 - 11.50
powd., bbls., 20-ton lots. 100 lbs. 10.75 - —
smaller lots ..... 100 lbs. 12.00 - 12.50
USP, gran., dms. ..... lb. .18 - —
Potassium nitrate in bags 50c. per 100 lbs. less in kegs, $1 more.
Oxalate, neutral, tech., fine gran., bbls., dms. lb. .30 - .32
Pentaborate, gran., bgs., c.l., works ton. 191.50 - —
dms., ton lots, ex whse ton. 198.00 - —
smaller lots, ex whse ton. 302.50 - —
Powdered potassium pentaborate $10.25 per ton higher.
Perchlorate, dms., c.l., works lb. .17½ - —
l.c.l., works lb. .18 - .19
Permanganate, coml., kgs., works, lb. .24½ - .27¼
USP, dms., works ..... lb. .27¼ - .29
Persulfate, dms., 5-ton lots, works, lb. .18 - —
1-ton lots, works ..... lb. .20 - —
Phosphate, tertabasic, bbls., works, lb. .16½ - .18½
Prussiate, red (see Potassium Ferricyanide).
yellow (see Potassium Ferrocyanide).
Silicate, glass bgs., c.l., works, 100 lbs. 17.00 - 17.30
l.c.l., works 100-lbs. 17.30 - —
Silicate, soln., clarif, 29° Be, 1:2.5, dms., c.l., works 100 lbs. 5.80 - —
l.c.l., 5 dms. or more works 100-lbs. 6.55 - 6.95
tanks, works 100-lbs. 5.45 - —
electrical grade, 29° Be, 1:2.0 dms., c.l., works 100 lbs. 6.50 - —
l.c.l., 5 dms. or more, works 100 lbs. 7.25 - 7.65
tanks, works 100 lbs. 6.15 - —
40.5° Be, 1:2.1, dms., c.l., works 100 lbs. 6.45 - —
l.c.l., 5 dms. or more works 100 lbs. 7.20 - 7.60
Silicofluoride, bgs., works ... lb. .09½ - .10
Potassium silicofluoride in drums, 0.4c. per lb. higher.
Stannate, dms., frt. alld. E ... lb. .697 - .763
Sulfate agricultural, 50% K_2O, bulk, works, base price, unit-ton. .64 - —
July forward unit-ton. .67 - —
NF VII, cryst., dms ..... lb. .31 - .33
gran., dms. ..... lb. .18½ - —
powder, dms. ..... lb. .16½ - .17

Potassium sulfocyanate, NF, cryst. (see Potassium thiacyanate).
Thiocyanate, NF, cryst., dms. lb. .84 - .94
tech., works ..... lb. .77 - .79
Titanate, ctns., c.l., works ..... lb. .14 - —
5-ton lots, works ..... lb. .14½ - —
1-ton lot or less, works ... lb. .14¾ - —
Toluene sulfonate, dms., c.l. or t.l., works ... lb. .42 - —
t.c.l., works ..... lb. .46 - —
Potassium-magnesium sulfate, bulk, works, basis 40% K_2SO_4, 18% MgO, base price ton. 13.45 - —
July forward ... ton. 14.90 - —
Potassium-sodium tartrate, NF, gran., powd., dms., c.l. lb. .40½ - —
5,000-lb. lots ..... lb. .41 - —
smaller lots ..... lb. .41½ - .47
Potassium-titanium fluoride, fib, dms, works lb. .39 - .40
Potassium-zirconium fluoride, fib, dms, c.l., works lb. .50 - —
t.c.l., works ..... lb. .52½ - .55
Pregnenolone, bots. ..... gram. .45 - —
Acetate, bots. ..... gram. .40 - —
Procaine hydrochloride, USP, dms., 1,000-lb. lots, frt. alld lb. 2.90 - —
100-lb. lots lb. 3.00 - 3.60
Progesterone, USP, bots., 100 gram lots gram .50 - —
Acetate, bots. gram .70 - —
Propane, indust., tanks, group 3 gal. .04½ - —
N. Y. Harbor ..... gal. .09 - —
n-Propyl acetate, dms., c.l., dlvd lb. .12¾ - —
t.c.l., dlvd. ..... lb. .13¾ - —
tanks, dlvd. ..... lb. .1075 - —
Gallate, dms., 100 to 2,000-lb. lots, works lb. 3.90 - 4.40
p-Hydroxybenzoate, USP, dms. lb. 2.30 - 2.40

Propyl thiouracil, bots., 50-kilo lots or more kilo. 55.00 - —
smaller lots kilo. 55.10 - 55.30
Prices in West 1c higher dlvd., en same basis
Propylene dichloride, dms., c.l., dlvd, E lb. .0825 - —
t.c.l., same basis lb. .095 - —
tanks, same basis lb. .07 - —
Glycol, indust., dms., c.l., dlvd, E lb. .15½ - —
t.c.l., same basis lb. .16½ - —
tanks, same basis lb. .13½ - —
USP, dms., c.l., dlvd, E lb. .17½ - —
t.c.l., same basis lb. .18½ - —
tanks, same basis lb. .15½ - —
Methyl ether, dms., c.l., dlvd lb. .20 - —
t.c.l., same basis lb. .21 - —
tanks, same basis lb. .18½ - —
Oxide, dms., c.l., dlvd, E ..... lb. .17½ - —
t.c.l., dlvd, E ..... lb. .18½ - —
tanks, dlvd, E ..... lb. .15½ - —
Psyllium seed, black, bgs. ..... lb. .55 - —
blonde, bgs ..... lb. .18 - —
husks, bgs ..... lb. .40 - —
Pumice dom. grd., coarse to fine, 0, ½, 1, 1½, 2, 3, bgs. ton lots lb. .03⅝ .04¼
smaller lots lb. .03¾ .04½
imp., Italian, silk-screen, coarse, bgs., ton lots lb. .06½ - —
fine, bgs., ton lots lb. .04 - —
sun dried, coarse, bgs. ton lots lb. .02½ .04
fine, bgs., ton lots ..... lb. .02½ .04
Pumpkin seed, bgs ..... lb. .25 - .26
Pyrethrin, syn. (see Allethrin).

Pyrethrum flowers, fine grd., 0.9% pyrethrins bbls., works lb. .45 - —
powd., 1.3% pyrethrins, obls., works lb. .65 - —
liq., 20:1 basis (2 grams pyrethrins per 100cc odorless base), dms., works gal. 8.75 - 8.80
100:1 basis (10 grams pyrethrins per 100cc odorless base), dms., works gal. 41.75 - 42.75
oleoresin, dewaxed, 20% dms works lb. 10.00 - —
purif. 20% dms. works lb. 10.00 - 10.10
Pyridine, denaturing, dms., c.l., works and frt. equald gal. 2.77 - —
t.c.l. same basis gal. 2.80 - —
reld. 2° anhydrous dms., t.c.l. same basis lb. .75 - —
Pyridoxine hydrochloride bots. 100-gram lots gram. .37½ - —
Pyrites, Canadian, works long-ton. 3.00 - 5.00
Pyrocatechol (see Catechol)
Pyrogallol, NF dms lb. 3.27 - 3.30
Pyroxylin scrap unsrtd. amber, dms., works lb. .20 - —
black, dms., works lb. .12 - —
mixed mottled dms works lb. .13 - —
shavings, amber, cs., works lb. No stocks.
mixed colors, dms., works lb. .11 - —
white, china, ivory, dms., works lb. .16 - —
dense opaque dms. works, lb. .12 - .15
translucent pastels, cs., works, lb. .14 - —
transparent, colorless, dms., works lb. .25 - —
colors dms. works lb. .15 - —
USP bots lb. 0.50 - —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Q

Quassia chips ..... lb. .17 - —
Quebracho extract, clarif., grd., 70% tannin bgs. c.l., lb. .16½- .16¾
liq., 35% tannin, bbls. works, lb. .08¼- —
solid, clarif., 64% tannin, bgs., c.l., exdock, duty extra lb. .12 23/64
ord. 63% tannin, bgs., c.l., same basis lb. .11 21/32- —
Quercitron extract, cryst., No. 1, bbls., l.c.l. lb. .40 - —
liq., No. 1, bbls. l.c.l lb. .19 - —
Quicksilver (see Mercury metal).
Quince seed, bgs ..... lb. 2.00 Nom.
Quinidine sulfate, USP, cns., 100-oz. lots oz. .75 - .87
Quinine, NF, cns., 100-oz. lots oz. .54 - —
Bisulfate, USP, cns., 100-oz. lots, oz. .37½- —
Ethylcarbonate, NF, cns., 100-oz. lots oz. .63½- —
Hydrobromide, NF, cns., 50-oz. cns oz. .47½- —
Sulfate, USP, cns., 100-oz. lots oz. .42 - —
Quinine and Urea hydrochloride, NF, cns oz. .56 - —
Quinoline, dms., c.l., frt. equald lb. .50¾- —
l.c.l., same basis ..... lb. .51¼- —
tanks, same basis ..... lb. .50 - —

R

R salt, paste, dms., frt. alld., 100% basis lb. .88 - —
powd., frt. alld. 100% basis lb. .98 - —
Rauwolfia serpentina root, powd., bbls., dms lb. 2.00 - —
Red, BON acid maroons, pure, bbls., lb. 1.75 - —
resinated, bbls lb 1.50 - —
arylid, deep shades, bbls lb. 3.60 - —
light shades, bbls lb 2.75 - —
maroon, bbls lb 3.60 5.90
Cadmium, CP, dark shade, bbls., frt. alld. E. of Rockies lb. 4.30 - —
light shade, bbls., same basis, lb. 4.00 - —
medium shade, bbls., same basis lb. 4.25 - —
medium light shade, bbls., same basis lb. 4.05 - —
orange shade, bbls, same basis lb. 3.95 - —
orange red, bbls., same basis, lb. 1.81 - —
Selenide lithopone, light red shades, bbls., same basis lb. 2.24 - 2.32
medium light red shades, bbls., same basis lb. 2.49 - —
medium red shade, bbls., same basis lb. 2.99 - —
dark red shade, bbls., same basis lb. 3.44 - —
maroon shade, bbls., same basis lb. 3.77 - —
dark maroon shade, bbls., same basis lb. 3.90 - —
Red, cadmium mercury lithpone, light shade, bbls lb. 1.95 - —
medium-light shade, bbls.lb. 2.10 - —
medium shade, bbls..... lb. 2.25 - —
dark shade, bbls..... lb. 2.40 - —
Carmine No. 40 (see Carmine).
Dyes (see Dyes, coaltar).
Eosin toner, bbls., works..... lb. 1.65 - —
Indian, dom., pure, bgs., Bethlehem, Easton, E. St. Louis, N. Y lb. .12¾- —
Iron oxide, nat., 75-85% ferric oxide, bgs. l.c.l. Bethlehem, Pa., Copley, O., Easton, Pa., bgs., c.l., works lb. .0675- —
Lake C toner, alizarin, bbls., works lb 1.13 - —
ruhine toner, pure, bbls., works, lb. 1.50 - —
resinated, bbls., works lb. 1.40 - —
Virginia type, bbls., works lb. 1.40 - —
Maroon toner, MNPT, kgs., c.l., works lb. 3.60 - —
10,000-lb. lots, works lb 4.22 - —
smaller lots, works lb. 4.24 - —
Mercury oxide, tech., c.l., works, lb. 5.77 - —
Metallic, bbls., c.l., works... lb. .02½- —
l.c.l., works ..... lb. .02¾- —
Naphthol, ITR, bbls., works....lb. 5.25 - —
Oxide (see Red iron oxide).
Persian Gulf, bgs., c.l., works, lb. .07¾- —
l.c.l., works..... lb. .08 - —
Para toner, bbls ..... lb. 1.10 - —
chlorinated, kgs ..... lb. 1.10 1.15
Phloxin toner (see Red eosin toner).
Rhodamine, molybdated, PMA, kegs lb. 5.35 - 5.60
tungstated, PTMA, works, kegs, lb. 6.40 - —
Red, Spanish oxide, bbls., c.l., exdock lb. .05¾- —
l.c.l., ex dock ..... lb. .06 - —
ex whse., New York lb. .06½- —
Toluidine toner, deep shades, kgs., works lb. 1.62 - 1.65
light shades, kgs., works.. lb. 1.62 - 1.65
Turkey, bbls., works ..... lb. .62 - —
Tuscan, bbls., frt. equald..... lb. .26 - .32
Venetian, jobbing, bgs., works, lb. .0475- —
20%, bgs., works ..... lb. .0325- —
25%, bgs., works ..... lb. .0575- —
30%, bgs., works ..... lb. .06 - —
35%, bgs., works ..... lb. .0625- —
40%, bgs., works ..... lb. .0675- —
Watchung-type, bbls..... lb. 1.95 —
Red KB base (see 4-Chloro-2-aminotoluene).
Red, precipitate (see Mercuric oxide, red).
Red saunders, NF, powd., bbls lb. .35 - .40
Reserpine, cryst., bots..... gram. 6.00 - 6.50
Resorcinol, tech grade, dms., c.l., works, frt. equald lb. .77½- —
l.c.l., same basis ..... lb. .78½- —
USP, dms., works ..... lb. 2.75 - —
powd., dms., works ..... lb. 2.95 - —
Monoacetate, NF, dms..... lb. 3.00 - 3.25
Rhatany root, bgs ..... lb .15 .16
Rhodinol, 5-lb. cans ..... lb. 25.50 -34.00
Rhubarb root, India, whole, bgs lb. 1.75 Nom.
powd., bbls lb 2.50 Nom.
Riboflavin, USP, bots., dlvd kilo. 65.00 - —
readily soluble, bots., dlvd kilo. 130.00 - —
5'-phosphate-sodium, bots., 100-kilo lots or more kilo. 125.00 - —
Rochelle salt (see Potassium sodium tartrate).
Rosin gum and wood (see Naval Stores in Protective Coatings market).
Rotenone, fib. dms., works, 100% basis lb. 10.00 - —
resin, 25-45%, fib dms., works, 30% basis lb. 3.00 - 3.30
Rottenstone, bgs., 5-ton lots, exwhse lb. .03 - —
ton lots, same basis..... lb. .04 - —
Rutin, NF, fib. dms. 25-kilo lots, kilo. 17.50 -18.50
10 to 25-kilo lots..... kilo. 17.50 -20.00
1 to 10-kilo lots..... kilo. 18.90 -20.00
Ryania, 100%, powd., bgs., c.l., works lb. .22 - —
l.c.l., same basis lb. .24 - —

S

Sabadilla seed, powd., bbls ..... lb. .49 - .49¼
activated, ground with lime, bbls... lb. .30 - .32
Saccharin, USP, cryst., soluble, dms., 1000-lb. lots lb. 1.60 - —
smaller lots ..... lb. 1.70 - 1.80
powd., soluble, insoluble, dms., 1000-lb. lots lb. 1.65 - —
smaller lots ..... lb. 1.75 - 1.95
Calcium, fib. dms., 1,000-lb. lots, works lb. 2.50 - —
Saffron, Spanish, USP, tins..... lb. 45.00 - —
Safrol, dms. ..... lb. 1.55 - —
Sage, Cretan, bgs..... lb. .11 - —
Dalmatian, bgs. ..... lb. .44 - —
Italian ..... lb. .26 Nom.
Sago flour, raw, bgs..... lb. .07 - .07¼
refd., bgs ..... lb. .08½- .09
Sal soda (see Soda sal)
Salicylamide, 100-lb. dms ..... lb. 1.00 - —
Salol, NF, gran., bbls., kgs ... lb. 1.15 - —
Powdered salol, 25c higher
Salt rock, paper bgs., c.l....100 lbs. 1.03 - —
table, vacuum common, fine, paper bgs., c.l. 100 lbs. 1.23 - —
Saltcake, dom., bulk works, 100% Na_2SO_4 basis ton 28.00 - —
Saltpeter (see Potassium nitrate).
Sandalwood, East indies, chips bgs. .65 - .66
powd., fib. dms ..... lb. .75 - .76
Sarsaparilla root, tmp., Honduras, bls lb. .58 - .62
Mexican, bls. ..... lb. .58 - .62
Sassafras root bark, ord., bls ..... lb. .45 - —
select, bbls. ..... lb. .65 - —
Schaeffer's salt, paste, dms., frt. alld. 100% basis lb. .95 - —
powd. bgs., frt. alld., 100% basis, lb. .95 - —
Scopolamine hydrobromide, USP, bots oz. 17.40 - —
Seidlitz mixture, bbls., 5,000-lb. lots lb. .30½- —
smaller lots lb .31 .33
Selenium, powd., dms., dlvd....lb. 13.50 -15.50
Senega root, bls..... lb. 3.10 - —
Senna leaves, Alex. whole and half, bls. lb. .19 - —
siftings ..... lb. .17 - —
Tinnevelly, No. 1, bls. ..... lb. .16 - .18
No. 2, bls. ..... lb. .13 - .15
No. 3, bls. ..... lb. .11 - .13
powdered, bbls., bxs. ..... lb. .18 - —
pods, bls. ..... lb. .14 - —
Serpentaria, root, bls..... lb. 5.50 - —
Sesame seed, Egyptian, nat..... lb. .16¾- —
hulled..... lb. .21 - —
Nicaragua, hulled, shipt., bgs. lb. .17½- —
nat., bgs. ..... lb. .26½- —
Salvadorian, natural..... lb. .17½- —
Syrian, bgs., natural..... lb. .16 - —
Shellac, bleached, bonedry, bgs., 1,500-lb. lots lb. .58 - —
bbls., 1,500-lb lots ..... lb. .60 - —
kgs., 1,500-lb lots ..... lb. .61 - —
refd., bgs., 1,500-lb. lots .... lb. .66 - —
bbls., 1,500-lb. lots .... lb. .68 - —
kgs., 1,500-lb. lots ..... lb. .69 - —
Bonedry shellac prices for less than 1,500 lb. lots 1c. per lb. higher for all packages.
Lemon No. 1, bgs., 10-bg. lots lb. .48 - —
No. 2, bgs., 10-bg. lots ..... lb. .46 - —
Superfine, bgs., 10-bg. lots..... lb. .43 - .44
TN, bgs., 10-bg. lots..... lb. .42 - —
Shellac in 1 to 10-bg. lots 1c. per lb. more.
Shingle stain oil (see Oil, shingle stain).
Silica, amorph., dry-grd., 325 mesh, bgs., c.l., works ton 25.00 - —
l.c.l., works, exwhse ton 45.00 -55.00
Hard-quartz, 99½, 325 mesh, bgs., c.l., works..ton 20.00 - —
l.c.l., works..... ton 25.00 -30.00
140 mesh, bgs., c.l., works, ton 15.00 - —
l.c.l., works..... ton 20.00 - —
Silicon tetrachloride, tech., dms., c.l., works. lb. .18 - —
l.c.l., works..... lb. .22 - .30¼
tanks, works..... lb. .17 - —
Silver bullion, ingots, cs....Troy oz. .90¾- —
Cyanide, fib. dms., 2,500-oz. lots, oz. .84⅛- —
1,000-oz. lots ..... oz. .84½- —
500-oz. lots ..... oz. .84⅝- —
100-oz. lots ..... oz. .84⅞- —
Nitrate, CP, cryst., bots., 2,500-oz. lots..oz. .60 - —
1,000-oz. lots ..... oz. .61½- —
500-oz. lots ..... oz. .61¾- —
250-oz. lots..... oz. .62¼- —
USP granular silver nitrate 4c. per oz higher.
Proteinate, mild, USP, bots., dms., 1,000-oz. lots oz. 1.05 - —
strong, NF, bots., dms., 1,000-oz. lots oz. 1.00 - —
Soapbark, whole, bls..... lb. .38 - .40
crushed, bls., bbls..... lb. .45 - —
powd., bbls. ..... lb. .45 - —

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Soda ash, dense, 58%, paper bgs., c.l., works..100 lbs. 1.80 - —
l.c.l., stock points..100 lbs. 2.90 - 4.67
bbls., c.l., works....100 lbs. 2.40 - —
l.c.l., stock points..100 lbs. 3.55 - 4.22
bulk, c.l., works....100 lbs. 1.50 - —
light, 38%, paper bgs., c.l., works..100 lbs. 1.75 - —
l.c.l., stock points..100 lbs. 3.85 - 4.62
bbls., c.l., works....100 lbs. 2.30 - —
l.c.l., stock points..100 lbs. 3.35 - 5.62
bulk, c.l., works....100 lbs. 1.45 - —

Soda, caustic, flake, 76%, dms., c.l., works, frt. equald..100 lbs. 4.50 - —
l.c.l., stock points..100 lbs. 5.60 - —
liq., 50% sellers, tanks, works, dry basis..100 lbs. 2.80 - —
rayon type, sellers, tanks, works, dry basis..100 lbs. 2.80 - 2.90
70% sellers' tanks, works, dry basis..100 lbs. 2.90 - —
rayon-type, sellers tanks,' works, dry basis..100 lbs. 2.90 - 3.00
solid, 76%, dms., c.l., works, 100 lbs. 4.10 - —
l.c.l., stock points 100 lbs. 5.20 - —
Sal., conc., bgs., c.l., works.100 lbs. 2.30 - —
smaller lots, works 100 lbs. 2.60 - —

Sodium acetate, anhyd., bgs., c.l., works lb. .13 - —
dms., c.l., works...lb. .13¾ - —
NF, 60% gran., dms., c.l., works lb. .14 - —
l.c.l., works lb. .15½ - —
Alginate, NF, white powd., dms., ton lots, works lb. .87 - 1.30
refd. bbls. works lb. .83 - —
p-Aminobenzoic, dms., 1,000-lb. lots or more lb. 2.25 - —
smaller lots lb. 2.35 - 2.45
p-Aminosalicylate, dms., 1,000-lb. lots or more, frt. adjusted lb. 3.75 - —
smaller lots, same basis lb. 3.80 - 4.25
Antimoniate, bbls., c.l., dlvd. E lb. .28 - —
l.c.l., dlvd. E lb. .29½ - —
Arsenate, 45% arsenic pentoxide, dms., c.l., works lb. .12½- —
l.c.l., works lb. .13¾- .14½
Arsenite 90%, pink powder, 75% arsenious oxide, dms., works lb. .12¼- —
l.c.l., works lb. .13 - .14½
soln., dms., works gal. .59 - .67
Ascorbate, dms., 25-50 kilo lots, kilo 12.00 - —
10-kilo lots kilo 12.35 - —
5-kilo lots kilo 12.75 - —
1-kilo lots kilo 13.00 - —
bots., 500-gram lots kilo 13.50 - —
Benzoate, tech., bbls., dms., lots or more lb. .39 - —
USP, bbls., dms., 100-lb. lots, or more lb. .46 - —
Bicarbonate, USP, gran., bgs., c.l., works..100 lbs. 2.80 - —
l.c.l., works ....100 lbs. 3.55 - —
powd., bgs., c.l., works, 100 lbs. 2.40 - —
l.c.l., works.....100 lbs. 3.15 - —
Bichromate, bgs., c.l., works....lb. .12¼- —
l.c.l., works.....lb. .12¾- .13¾
Bifluoride, bbls., c.l., works, frt. equaled lb. .18½- —
l.c.l., same basis lb. .1890- —
Bisulfate, bulk, c.l., works..100 lbs. 2.00 - —
dms., c.l., frt. equald..100 lbs. 3.00 - 3.60
l.c.l., frt. equald.....100 lbs. 3.50 - 4.10
Bisulfite, anhyd., bgs., c.l., works, 100 lbs. 4.50 - —
l.c.l., works.....100 lbs. 4.90 - —
soln., 35°, bbls., c.l., works, 100 lbs. 1.55 - —
l.c.l., works.....100 lbs. 2.05 - —
Borate (see Borax).
Bromide, USP, bbls., works....lb. .36 - —
Carboxymethyl cellulose (see CMC).
Carbonate, cryst., monohydrated (see Soda, sal) monohydrated bgs., c.l., works, 100 lbs. 3.00 - —
l.c.l., works.....100 lbs. 3.40 - —
Chlorate, cryst., dms., c.l., works, lb. .09 - —
l.c.l., works.....lb. .10½- .11¼
Chloride, tech (see Salt)
USP, bgs. .....lb. .05 - .12
Chlorite, tech., dms., c.l., works, lb. .58 - —
20-ton lots or more, works, lb. .66 - —
smaller lots, works lb. .70 - .73
Chloroacetate, tech., dms., c.l., works..lb. .27 - —
l.c.l., works.....lb. .28 - —
Chromate, dms., c.l., works....lb. .13¼- —
l.c.l., same basis.....lb. .13¾- .15
Citrate, anhyd., dms.....lb. .62 - —
NF VIII, gran., dms.....lb. .26½- .27½
USP, XIV gran., dms.....lb. .29½- .30½
Sodium citrate, USP, powd. prices ½c higher.
Cyanate, dms., 1,000-lb. lots, works..lb. .85 - 1.10
smaller lots, works.....lb. 1.00 - 1.25
Cyanide flake, 96-98%, dms., c.l., or 20,000-lb. lots..lb. .178 - —
over 1,000-lb. lots .....lb. .188 - —
100-lb. to 1,000-lb lots..lb. .198 - —
Granular sodium cyanide 1c. higher.
Diacetate, 33-35% acidity, 250-lb. dms., works..lb. .15 - —
l.c.l., works .....lb. .15¾- —
anhyd., dms., c.l., works....lb. .18 - —
l.c.l., works .....lb. .18¾- —
Dichromate (see Sodium bichromate).
Ferrocyanide, bgs., 10-ton lots lb. .13½- —
smaller lots. .....lb. .14 - —
Fluoride, white, 97%, fib. dms., c.l., works, frt. equald..lb. .1390- —
l.c.l., works .....lb. .1430- —
Formate, bgs., c.l., works.....lb. 7.60 - —
l.c.l., works .....100 lbs. 8.65 - —
Gentisate, 100-lb. fib. dms ....lb. 8.50 - —
Gluconate, refd., dms. .....lb. .80 - .83
tech, dms. .....lb. .35 - —
Glutamate, mono., dms., c.l....lb. 1.20 - —
Hydride, dms., works .....lb. 1.80 - 3.00
Hydrosulfide (see Sodium sulfhydrate).
Hydrosulfite, dms., c.l., frt. alld. lb. .22 - —
l.c.l., frt. alld. .....lb. .22½- —
Hydroxide, NF, pellets, 100-lb. dms., 1 to 100-dm. lots lb. .18½- .23
technical (see Soda, Caustic).
Hypophosphite, NF, dms., ton-lots or less..lb. .93 - .98
Hyposulfate, NF (see Sodium sulfate).
pea crystals, bgs. .....100-lbs. 4.50 - —
gran., bgs., c.l., works..100 lbs. 4.75 - 5.00
Hyposulfite, photo grade, bgs., c.l., works..100 lbs. 4.50 - 4.75
l.c.l., works .....100 lbs. 5.00 - 5.05
l.c.l., works.....100 lbs. 4.90 - 6.90
Sodium hyposulfite crystals in bbls., 50c. higher.
Iodide, USP, bots., dms.....lb. 2.55 - 2.62
Lactate, edible, 50%, cbys., dms., works lb. .21½- —
60% cbys., dms., works lb. .26½- —
tech., 50%, cbys., dms., works.lb. .16½- —

Sodium lauryl sulfate, dms., c.l., dlvd..lb. .21 - —
l.c.l., dlvd.....lb. .22 - —
tanks, dlvd.....lb. .18½- —
Metabisulfite (see Sodium bisulfite).
Metaborate, octahydrate, gran., bgs., c.l., works..ton 85.00 - —
l.c.l., ex whse.....ton 135.50 - 140.50
Sodium metaborate octahydrate in bbls, $24.50 per ton higher.
Metaborate tetrahydrate, dms., c.l., works..ton 204.00 - —
Metallic bricks, 14,000-lb. lots or more, works lb. .17 - .19
less than 14,000-lb. lots, works. lb. .175 - .195
tanks, works .....lb. .16 - —
Metanilate, bbls., frt. alld.....lb. .62 - —
Metasilicate, anhyd., bgs., c.l., works..100 lbs. 5.35 - —
l.c.l., works.....100 lbs. 5.70 - 7.65
dms., c.l .....100 lbs. 5.80 - —
l.c.l. .....100 lbs. 6.20 - 8.10
Pentahydrate, bgs., c.l., works. 100 lbs. 4.25 - —
l.c.l., works .....100 lbs. 4.60 - 6.50
dms., c.l., works.....100 lbs. 4.75 - —
l.c.l., works.....100 lbs. 5.10 - 7.00
Molybdate, anhyd., dms., dlvd..lb. .88 - —
cryst., dms., works.....lb. .69 - .73
Monohydrate (see Sodium carbonate monohydrated).
Naphthionate, bbls.....lb. .70 - —
Nitrate, crude, dom., bgs., c.l., works..ton 47.00 - —
bulk, c.l., works .....ton 43.50 - —
imp., 100-lb. bgs., c.l., Atl. Gulf, Pac., whse...ton 51 25 - —
bulk, c.l., same basis..ton 47.75 - —

Sodium nitrate, USP, bbls., c.l., works, frt. equald..lb. .08 - —
l.c.l., same basis .....lb. .09½- —
Orthosilicate, conc., dms., c.l., works..100 lbs. 6.30 - —
l.c.l., works .....100 lbs. 6.65 - 7.25
hydrated, flake, bbls., c.l., works 100 lbs. 5.40 - —
l.c.l., works .....100 lbs. 7.30 - 7.65
Oxalate, 98%, bgs., works .... 100 lbs. 10.85 - —
Para-aminobenzoate (see Sodium p-Aminobenzoate).
Para-aminosalicylate (see Sodium p-Aminosalicylate).
Pentachlorophenate, briquets, bgs., c.l., works, frt. equald..lb. .25 - —
l.c.l., same basis.....lb. .26½- .33
pellets, bgs., c.l. same basis lb. .25 - —
l.c.l., same basis.....lb. .26½- .33
Pentachlorophenate, powd., bgs., dms., c.l., same basis lb. .24 - —
l.c.l., same basis .....lb. .25½- .32
Pentachlorophenate, 20,000 lbs., min. truckloads, ¼c per lb. over carlot prices.
Perborate, NF, tech., bgs., c.l., works..lb. .173 - —
l.c.l., works .....lb. .178 - —
Peroxide, dms., c.l., dlvd. E. of Miss..lb. .1860- —
l.c.l. same basis.....lb. .1910- .1960
Phenolsulfonate, USP IX, gran., dms..lb. .44 - .45

Sodium phosphate, dibasic, anhyd., bgs., c.l., frt. equald..100 lbs. 7.45 - —
l.c.l., works .....100 lbs. 7.85 - —
USP dried powd. bgs., dms., works lb. .19 - .20¼
monobasic anhyd., bgs., c.l., frt. equald..100 lbs. 8.70 - —
l.c.l., frt. equald..100 lbs. 9.10 - 9.70
duohydrate, bgs., c.l., frt. equald..100 lbs. 7.20 - —
l.c.l., frt. equald..100 lbs. 7.60 - 8.20
tribasic, anhyd., bgs., c.l., frt. equald..100 lbs. 8.65 - —
l.c.l., frt. equald..100 lbs. 9.05 - 9.65
cryst., bgs., c.l., t.l., frt. equald..100 lbs. 4.40 - —
l.c.l., frt. equald..100 lbs. 4.80 - 5.40
Sodium phosphates in dms., 60c. higher than bgs.
Prussiate, yellow (see sodium ferrocyanide).
Pyrophosphate, acid, bgs., c.l., works, frt. equald..100 lbs. 10.60 - —
l.c.l., works.....100 lbs. 11.35 - 11.60
ferric, dms., 1,500-lb. lots, works lb. .38½- —
smaller lots, works .....lb. .41½- .43¼
tetrabasic, anhyd., bgs., c.l., works, frt. equald..100 lbs. 7.52½- —
l.c.l., frt. equald....100 lbs. 7.92½- 8.52½
Salicylate, USP, dms.....lb. .71 - .74
powd., dms.....lb. .47 - .48

Reports indicate 2½ times longer finish life from polish using A-C Polyethylene.

There's a big change in polish!

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A-C* Polyethylene

- A-C Polyethylene is compatible with all wax formulations.
- A-C Polyethylene is available in regular or emulsifiable grades. It can be emulsified in acid, neutral or alkali systems.
- A-C Polyethylene is a manufactured product in plentiful supply. Delivery is on-time and prices are stable.

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Sodium sesquicarbonate, bgs., c.l., works 100 lbs. 2.25 - —
l.c.l. dlvd., zone 1 100 lbs 4.00 - 4.25
zone 2 100 lbs 4.25 - 4.50
zone 3 100 lbs 4.65 - 4.80
zone 4 100 lbs 5.25 - 5.50

Sales zones are: (1) All States E. of Miss. R. and N. of south bound of Ky. and Va.; Ala., La., and Miss., south of 31° Tex. E. of 100°; S. of 31° Fla.; also Me., N. H., and Vt., in which there are special county zones; Davenport, Ia., and St. Louis; (2) Ark. E. of 98° Ga.; Iowa (except Davenport), Minn., Mo. (except St. Louis), Neb., E. of 98° N. C., S. C., Tenn. and Tex. N. of 31° and E. of 100° (except Wichita Falls); also Ala., La. and Miss. No. of 31°; (3) Ark. W. of 98°, Kan. Neb. W. of 98°; N. D., Okla., S. D., Tex., W. of 100° (including Wichita Falls, excluding El Paso); (4) Ariz., Colo., Idaho, Mont., Nev., N. M., Utah, Wyo. and El Paso, Tex.

Sesquisilicate, hydrated, bgs., c.l., works 100 lbs. 4.80 - —
l.c.l., works 100 lbs. 5.15 - —
dms., c.l., works 100 lbs. 5.30 - —
l.c.l., works 100 lbs. 5.65 - —

Silicate liq., 40° Be, 1:3.2, turbid, dms., c.l., works 100 lbs. 1.45 - —
l.c.l., works, 100 lbs. 1.80 - 2.30
tanks, works 100 lbs. 1.10 - —
47° Be, turbid, 1:2.9, dms., c.l., works 100 lbs. 2.10 - —
l.c.l., works 100 lbs. 2.70 - 2.95
tanks, works 100 lbs. 1.75 - —

Sodium silicate, liq., 52° Be, turbid, 1:2.4, dms., c.l., works 100 lbs. 2.45 - —
l.c.l., works 100 lbs. 2.80 - 3.30
tanks, works 100 lbs. 2.10 - —
solid, 1:3.2, bgs., works ton.62.50 - —
Silicofluoride, bgs., c.l., works lb. .075 - —
l.c.l., works lb. .079 - —
Sodium silicofluoride in dms., 0.4c per lb. higher.
Stannate, dms., works, frt. alld. E lb. .566 - .620
Sulfa drugs (see Sulfa name).
Sulfanilate, bbls., works lb. .22 - —
Sulfate, NF, VII, dried, powd., dms lb. .22½- —
tech., anhyd., bgs., c.l., dlvd. E ton.52.00 - —
detergent grade, bgs., c.l., works ton.34.00 - —
rayon grade, bgs., c.l., works. ton.31.00 - —
USP, cryst., fib. dms lb. .17½- .18
gran., fib. dms lb. .17½- .18
Sulfhydrate, flake, 70-72%, dms., c.l., works lb. .06½- —
l.c.l., works lb. .07½- —
liq. 40-44% tanks, works, 100% basis ton.115.00 - —
Sulfide, flake, dms., c.l., works, E., frt. equald lb. .05¼- —
l.c.l., same basis lb. .06¼- —
fused, bbls., c.l., works E., frt. equald lb. .04¾- —
l.c.l., same basis lb. .05¼- —

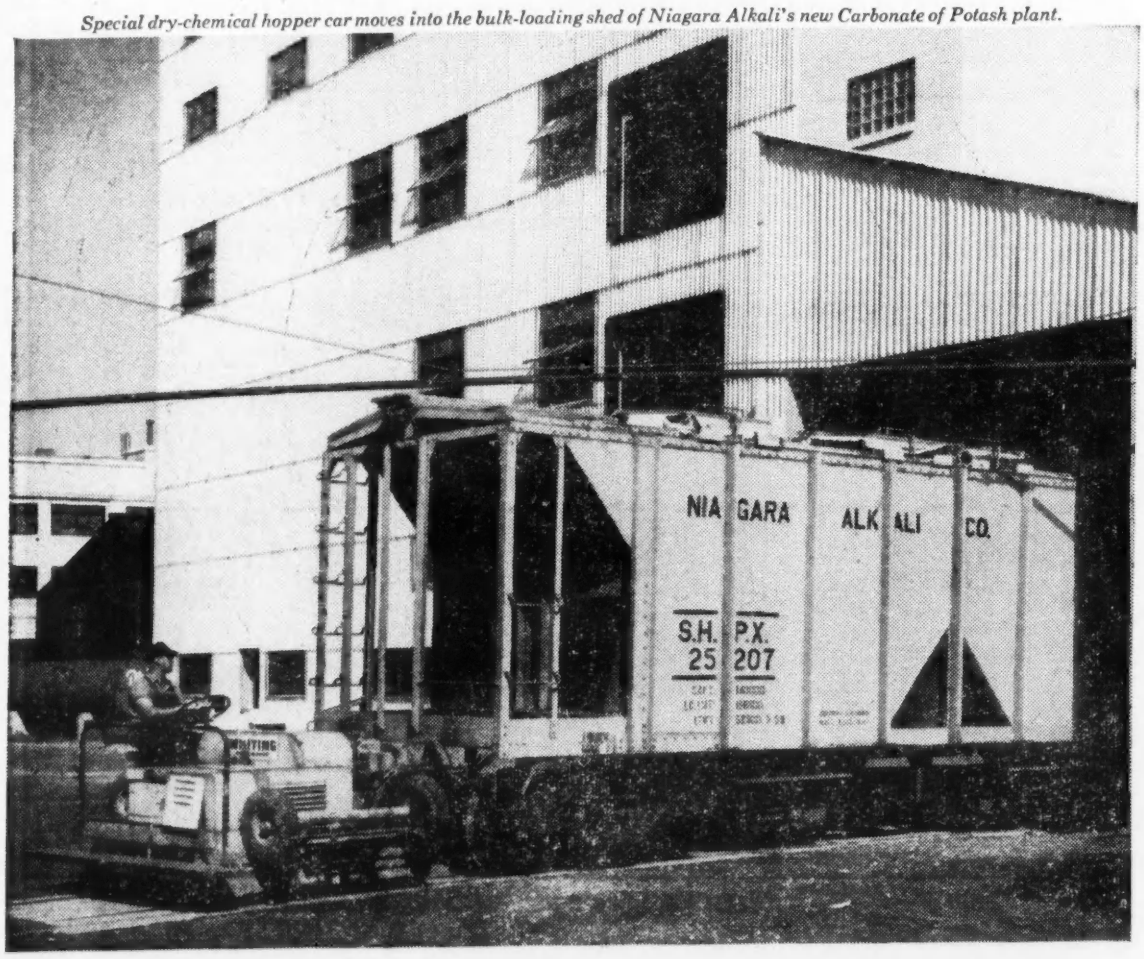
Sodium sulfite, anhyd., bgs., c.l. 100 lbs. 3.00 - —
l.c.l., same basis 100 lbs. 3.50 - —
Sulfocyanide CP (see Sodium thiocyanate).
Tetraborate (see Borax).
Tetrasulfide, liq., 40%, dms., c.l., works lb. .03½- —
l.c.l., works lb. .04½- —
Thiocyanate, CP, dms lb. .55 - .65
tech., anhyd., 1 ton lots or more, works lb. .317 - —
less than ton lots, works lb. .337 - —
Thiosulfate, NF, cryst., bbls lb. .12½- —
(tech (see Sodium hyposulphite).
Titanate, etns., c.l., works lb. .10½- —
5-ton lots, works lb. .10¾- —
1-ton or less, works lb. .11 - —
Toluene sulfonate, dms., c.l., or t.l. lb. .38 - —
l.c.l. lb. .42 - —
Trichloroacetate, 90%, 100-lb. dms., c.l., frt. alld. E lb. .37½- —
l.c.l., frt. adjusted, E lb. .39½- —
50 lb dms., c.l. frt alld E. lb. .38 - —
l.c.l., frt adjusted E lb. .40 - —
10-lb. cns., c.l. frt alld E. lb. .44 - —
l.c.l., frt. adjusted E lb. .46 - —

Prices on Sodium trichloroacetate W. of the Rockies are 1¾c. per pound higher.

Tripolyphosphate, bgs., c.l., works, frt. equald 100 lbs. 7.87½- —
l.c.l., same basis 100 lbs. 8.27½ 8.87½
Trisilicate, powd., 1:3.2, bgs., c.l., works 100 lbs. 8.65 - —
l.c.l., works 100 lbs. 9.40 9.80
dms., c.l., works 100 lbs 9.05 —
l.c.l., works 100 lbs. 9.80 -10.40
Tungstate, tech., kgs., dlvd. E lb. 2.15 - —

Sodium-ammonium phosphate, bbls., works, frt. equald lb. .23 - —
Sodium carboxymethyl cellulose(see CMC).
Sodium-cinchophen (see Cinchephen-sodium).
Sodium-formaldehyde sulfoxylate, dms., c.l., dlvd lb. .21 - —
l.c.l., same basis lb. .21½- —
Sodium-zirconyl sulfate, fiber dms., 1,000-lb lots or more works lb. .28 - —
smaller lots, same basis lb. .30 - —
Solvent naphtha, coaltar, high flash, tanks, frt. equald gal. .31 .32
petroleum (see Petroleum solvent, partial aromatic).
Sorbitan monostearate, fib. dms., 20,000-lb. lots, works lb. .32 - —
10,000 to 20,000-lb. lots, works. lb. .34 - —
smaller lots, works lb. .37 - .39
Tristearate, fib. dms., 20,000-lb. lots, works lb. .33 - —
10,000 to 20,000-lb. lots, works. lb. .35 - —
smaller lots, works lb. .39 - .40
Sorbitol, cryst., resin grade, pellets, dms., c.l., works lb. .23 - —
1 to 5-ton lots, works lb. .25 - .26
powd., dms., 1 to 5-ton lots, works lb. .38 - .39
soln., coml., aqueous, dms., c.l., works lb. .24¼- —
ton lots, works lb. .25 - —
smaller lots, works lb. .2?¼- —
tanks, works lb. .23¼- —
reg. 70% aqueous, dms., c.l., works lb. .16 - —
ton lots, works lb. .16¾- —
smaller lots, works lb. .17 - —
tanks, works lb. .15 - —
Soybean meal, 44%, bulk, Decatur ton.57.50 - —
protein, chemically isolated, bgs., c.l., works lb. .23 - —
mechanically refd., bgs., l.c.l., works lb. .066 - —
Sparteine sulfate, cns oz. .60 - .65
Spearmint leaves, dom., bls lb. .75 - —
Spruce extract, liq., reg. tanks, works lb. .01¾- —
powd., super, bgs., c.l., works lb. .05¼- —
l.c.l., works lb. .05½- —
Squill, white, bls lb. .16 - .18
powd., bbls., bxs lb. .17 - .20
St. John's bread, edible, bls lb. .13 - .15
Stannic chloride, anhyd., dms., works lb. .781 - .791
Oxide, dms., dlvd. E lb. 1.00 - 1.01
Stannous chloride, anhyd., dms., works lb. .903 - 1.171
hydrous, cryst., dms., works. lb. .79 - .80
Sulfate, dms., works lb. .958 - .978
Starch, corn, pearl, paper bgs., c.l., 100 lbs. 7.17 - —
l.c.l. 100 lbs. 7.32 - —
powd., paper bgs., c.l. 100 lbs. 7.29 - —
l.c.l. 100 lbs. 7.44 - —
Prices for corn starch in cotton bags, 15c. per 100 lbs. higher.
Potato, dom., Idaho, bgs., c.l., works lb. .0660- —
Maine, bgs., c.l., works lb. .06½- .06¾
ex whse, N. Y. lb. .08½- .09½
Rice, bgs., l.c.l. lb. .15½- .16
Wheat, bgs lb. .08½- .09
Star root (see Helonias root).
Stargrass Root (see Aletris root).
Stavesacre seed, bgs lb. .60 - .61
Stearine oleo (see Oleostearine).
Stramonium leaves, bgs. lb. .18 - .20
Streptomycin hydrochloride, bulk, gram. .07 - .0745
Stronium bromide, NF, cns., dms. lb. .75 - .83
Carbonate, pure, dms., 5-ton lots or more, works lb. .35 - —
1-ton lots, works lb. .37 - —
tech., dms., works lb. .19 - —
Chromate, bbls., works lb. .46 - —
Iodide, pars, 25-lb. lots lb. 3. - —
Nitrate, bbls., c.l., works 100 lbs. 11.00 - —
l.c.l., works 100 lbs. 12.00 - —
Salicylate, NF, dms lb. 1.78 - —
Sulfate, air floated, 90%, 325 mesh, bgs., works ton.56.70 -66.15
Strophanthin, K., bots. oz.25.00 -25.50
G. (see Ouabain, USP).
Strophanthus seed, Kombi, biologically tested, bgs lb. 3.50 - 3.75
Strychnine, NF, powd., cns., 100-oz. lots oz. 1.10 - —
Phosphate, NF, cns., 100-oz. lots. oz. 1.14 - —
Sulfate, USP, cryst., cns., 25-oz. lots oz. .96 - —
powd., 100-oz. lots oz. .85 - —
Styrax, USP, cs lb .78 .80
Styrene monomer, polymer grade, 99½%, dms., c.l., frt. alld. lb. .22½- —
l.c.l., same basis lb. .23½- —
tanks, same basis lb. .20½- —
synthetic rubber grade, 99%, dms., c.l., frt. alld lb. .18½- —
l.c.l., same basis lb. .19½- —
tanks, same basis lb. .16½- —
Styrolyl acetate, bots lb. 1.45 1.70
Sucrose, crude, bgs., dlvd., N. Y. lb. .0555- —
refd., white, bgs., refy., E lb. .0855- —
Octa-acetate, denaturing grade, 100-200-lbs., bgs., l.c.l., works lb. .76 - —
Sugar (see Sucrose, crude, refined).
Sulfabenzamide, dms lb. 4.00 - 4.50
Sodium, dms lb. 4.10 - 4.60
Sulfacetamide, fib. dms lb. 4.00 - 4.20
Sodium fib. dms lb. 5.00 - 5.20
Sulfadiazine, USP, microcrystals, dms. lb.10.60 -11.10
powd., dms lb.10.25 -10.75
Sulfadiazine-sodium, USP, dms. lb.11.25 -11.75
microcrystals, dms. lb.11.60 -12.10
Sulfaguanidine, USP dms lb. 2.50 - —
Sulfamerazine, USP, microcrystals. lb.10.65 -11.15
Sulfamerazine-sodium, USP, dms., lb.11.25 -11.75
Sulfamethazine, microcrystals, dms., lb. 8.90 - 9.40
powd., dms lb. 8.50 - 9.00
Sulfanilamide, USP, 30-80 mesh., dms lb. 1.40 - 1.60
microcrystals, dms. lb. 1.70 - 1.90
powd., dms lb. 1.30 - 1.50
Quinoxaline, veterinary, dms lb. 6.40 - 6.75
Sulfapyridine, NF powd., bots., tins. lb. 7.00 - 7.50
Sulfapyridine-sodium, monohydrate, dms lb. 7.50 - 8.00
Sulfathiazole, USP, microcrystals, dms lb. 2.85 - 3.00
powd., dms lb. 2.50 - 2.65
Sulfathiazole-sodium, USP, dms lb. 2.75 - 2.90
Sulfur, coml., flour, bgs., mines 100 lbs. 2.30 - —
bbls., mines 100 lbs 3.05 - —
lump, bgs., mines 100 lbs. 2.20 - —
bbls., mines 100 lbs. 2.65 - —
crude, bulk, c.l., mines, contract. long-ton.26.50 - —
export, f.o.b. vessels, Gulf ports long-ton.28 00 -31.00
domestic and Canada, f.o.b. vessel Gulf port long-ton.28.00 - —

Special dry-chemical hopper car moves into the bulk-loading shed of Niagara Alkali's new Carbonate of Potash plant.



Niagara's new plant means assured quality for you in

Nialk® CARBONATE OF POTASH

Niagara has recently completed a new plant for the manufacture of carbonate of potash. It is equipped with the latest and finest facilities for quality control and volume production.

As pioneer producers of electrochemicals, Niagara has consistently set new standards of purity and uniformity.

These new facilities, together with Niagara's long experience in the production of quality products, are your assurance of complete dependability in NIALK Carbonate of Potash. Why not benefit by the extra protection they provide in your products and processes?

Send for free illustrated booklet, NIALK CAUSTIC POTASH, CARBONATE OF POTASH *containing valuable data on the use and handling of these chemicals.*

HOOKER CHEMICALS & PLASTICS

From the Salt of the Earth

HOOKER ELECTROCHEMICAL COMPANY
4740 Buffalo Avenue, Niagara Falls, N. Y.
Niagara Falls • Tacoma • Montague, Mich. • New York • Chicago • Los Angeles

Sulfur, refd., flowers, USP, bgs., mines..100 lbs. 4.00 - —
bbls. ..... 100 lbs. 5.25 - —
flour, light bgs., mines..100 lbs. 3.60 - —
bbls., mines .....100 lbs. 4.50 - —
lump bgs., mines.....100 lbs. 3.30 - —
rolls, bgs., mines.....100 lbs. 3.85 - —
bbls., mines .....100 lbs. 4.40 - —
salt block, bgs. mines 100 lbs. 3.50 - —
virgin block, bbls., mines. 100 lbs. 3.45 - —
rubbermakers, coml., reg., bgs., mines..100 lbs. 2.40 - —
bbls., mines 100 lbs. 3.55 - —
98-100% passing through 325 mesh, bgs. mines 100 lbs 3.50 - —
bbls. mines .....100 lbs 3.65 - —
refd., bgs., mines .... 100 lbs 3.25 - —
bbls mines 100 lbs 4.30 - —
treated, 2.5% mineral oil, bgs., mines 100 lbs. 2.70 - —
bbls., mines 100 lbs. 3.85 - —
10% pine tar bgs. mines. 100 lbs. 3.90 - —
Dichloride, dms., c.l., works, frt. equald lb. .04 - —
l.c.l. same basis ..... lb. .04¾- —
tanks, same basis ..... lb. .03¾- —
Dioxide, liq., coml., cyls., works, frt. equald lb. .10 .12
multi unit cars, works lb. .0535- —
tanks, works lb. .045 —
refrigeration, 150-lb. cyls., dlvd. lb. .30 - —
Monochloride, 55-gal., dms., c.l., frt. equald lb. .04 - —
l.c.l. same basis ..... lb. .04¾- —
tanks, same basis ..... lb. .03¾- —
Sumac leaves 28%, bgs., ex-dock, ton.132 00 - —
ground, bgs., ex-dock ton.127 00 - —
Superphosphate, run-of-pile, under 22% a.p.a pulv., bulk, c.l., Balto.. unit-ton. .88 .91
Carteret, N. J. unit-ton. .88 .91
triple 48% or more, a.p.a., pulv., bulk c.l. East Tampa, Fla. unit-ton. .98 - —

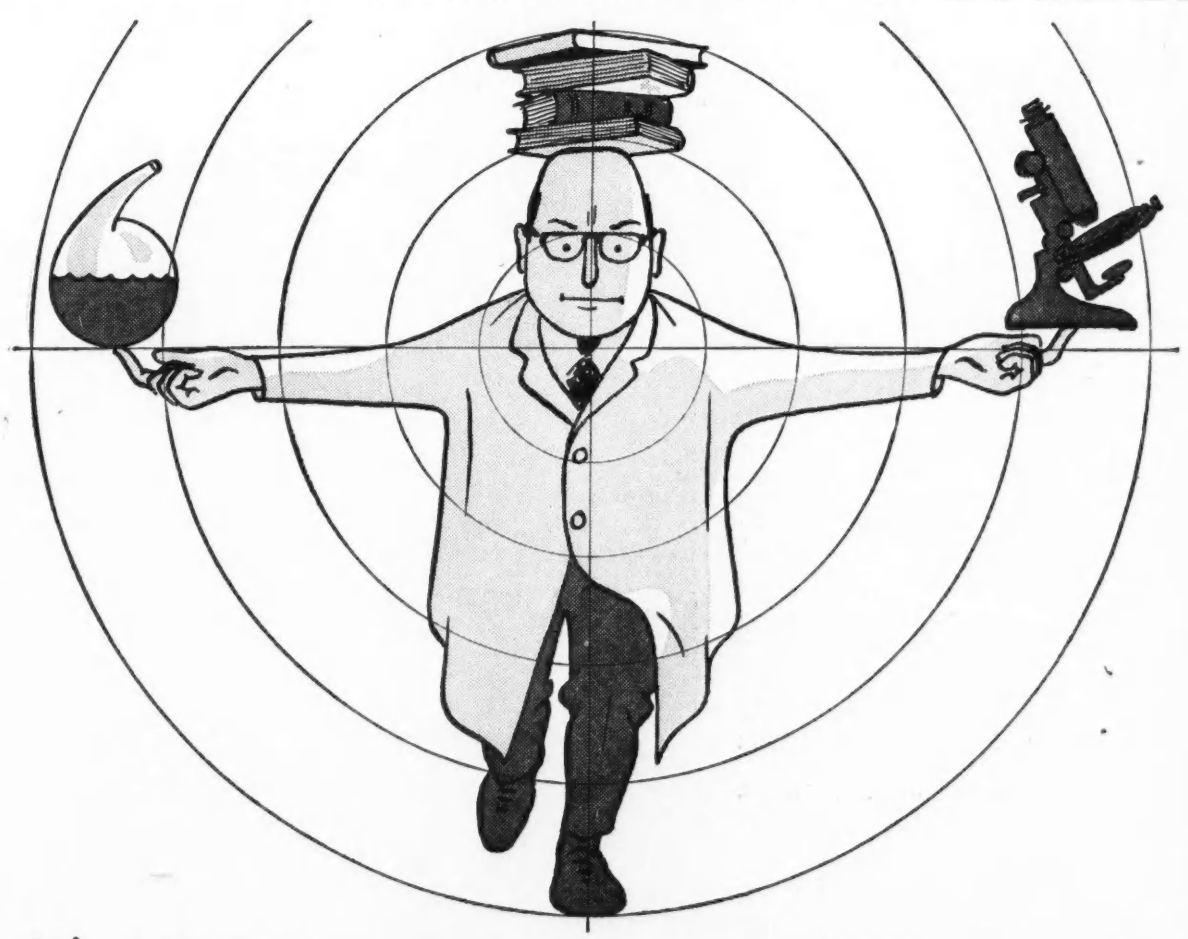
T

2,4,5-T, dms., c.l., works, frt. equald. lb. 1.18 - —
l.c.l., same basis ..... lb. 1.25 - —
Isopropyl ester, dms., c.l., works, frt. equald lb. 1.24 - —
l.c.l., works ..... lb. 1.29 - —
Talc, dom. ord. Calif., grd., bgs., c.l., works ton.33.00 -39.50
Vermont off color grd., bgs., c.l., works..ton.19.40 - —
l.c.l., works ..... ton.37.00 - —
fibrous, New York, grd., bgs., c.l., works..ton.28.00 - —
l.c.l., works .....ton.31.00 -36.00
99.5%, 325 mesh, bgs., c.l., works..ton.31.00 - —
l.c.l., works .....ton.34.00 - —
99.95% micronized, bgs., works..ton.38.00 - —
tmp., Canadian grd., bgs., c.l., mines ton.20.00 25.00
Tallow, edible, tanks, dlvd ..... lb. .11¾- .12
inedible, extra, tanks, dlvd.... lb. .07⅜- —
fancy bleachable, tanks, dlvd., lb. .07¾- —
guaranteed, dms., f.a.s... lb. .09⅜- .09½
No. 1, tanks, dlvd ..... lb. .07¼- —
special tanks, dlvd..... lb. .07½- —
sulfonated, 25%, bbls., l.c.l. lb. .08¾- .09
50% bbls., l.c.l..... lb. .09¾- .10¼
Tankage, animal, feeding, 9-11% ammonia, bulk unit-ton. 4.25 - —
Chicago, bulk unit-ton. 5.25 - —
Tapioca flour, Brazilian, bgs., ex whse..lb. .08¼- .09
Siamese, top grade, bgs., ex whse. lb. .07½ Nom.
Tar acid oil, 15-18%, dms., c.l., frt. equald..gal. .47 - .49
l.c.l., same basis .....gal. .50 - .51
tanks, same basis ..... gal. .39 - —
25-28%, dms., c.l., same basis. gal. .54 - .56
l.c.l., same basis ..... gal. .57 - .58
tanks, same basis..... gal. .46 - —
50-53%, dms., c.l., same basis. gal. .70 - .72½
l.c.l., same basis..... gal. .73½- .74½
tanks, same basis..... gal. .62½- —
Coal (see Coaltar).
Tartar, emetic (see Antimony-potassium tartarate).
Terpine glycol ether, dms., c.l., works lb. .23½- —
l.c.l., works ..... lb. .25½- —
tanks, works ..... lb. .22 - —
Hydrate, NF, cryst., powd., fib. dms lb. .67½- .74
Terpineol, dms., l.c.l, dlvd. E lb. .20¾- —
extra, dms ..... lb. .41 - .60
prime, dms ..... lb. .30 - .45
Terpinyl acetate, extra, cns., dms. lb. .60 - .75
prime, dms ..... lb. .55 - .70
Propionate, dms ..... lb. 1.75 - 2.00
Terra alba (see Gypsum).
Testosterone, USP, 100-gm. lots, bots gram. .70 - —
Propionate, USP, 100-gm. lots, bots gram. .68 - —
Tetrachloroethane, dms., works lb. .14½- —
Tetrasodium pyrophosphate (see Sodium pyrophosphate).
Tetrachloroethylene, tech (see Perchloroethylene).
USP 55 gal. dms., works..... lb. .20½- .21½
smaller dms., works ..... lb. .23½- .25
Tetraethyl orthosilicate, dms., c.l., dlvd. E lb. .61½- —
l.c.l., dlvd. E ..... lb. .62½- —
Pyrophosphate, 40%, cns., dms., frt. equald lb. .75 - —
Tetraethylenepentamine, dms., c.l., dlvd. E lb. .49 - —
l.c.l., dlvd. E ..... lb. .50 - —
tanks, dlvd. E ..... lb. .47 - —
Tetrahydrofuran, dms., c.l., or t.l., works lb. .38½- —
l.c.l., or l.t.l., works..... lb. .37 - —
tanks, works..... lb. .35 - —
Tetrapotassium phosphate (see Potassium phosphate).
Thallium metal, dlvd..... .....lb.12.50 -15.00
Sulfate, 99%, bots., dlvd.....lb. 8.00 -13.00
Theobromine, NF, fib. dms.....lb. 3.25 - —
And sodium acetate, USP, fib. dms. lb. 4.00 - —
Sodio-Salicylate, NF, fib. dms lb. 3.30 - —
Theophylline, anyhd. or USP, 100-lb. dms lb. 3.65 - —
Thiamine hydrochloride, USP, regular or ampul-type, fib. dms. lar fib. dms..kilo.60.00 - —
ampule grade.....kilo.62.00 - —
Mononitrate, USP, fib. dms..kilo.62.00 - —
Thiocarbanilide, dms., ton lots...lb. .72 - —
less tons lots ..... lb. .74 - —
Thiodiphenylamine (see Phenothiazine).
Thiourea, tech., dms., c.l., frt. alld. lb. .36 - —
l.c.l., works ..... lb. .38 - —
Thorium nitrate, purif., fig. dms., 100-lb. lots or more. works lb. 3.50 - —
dl-Threonine, bots., 1-kilo lots. kilo.450.00 -500.00
Thyme leaves, French, bgs.....lb. .19 - .22½
Spanish, bgs ..... lb. .09 - —
Thymol, fib. dms .....lb. 2.50 - 2.75
Iodide, NF, dms. .....lb. 7.50 - —
Timbo root (see Cube root)

Tin chloride (see Stannous chloride, anhydrous).
crystals (see Stannous chloride, hydrous).
Oxide (see Stannic oxide).
Metal (Straits) .....lb. .96⅝- —
Sulfate (see Stannous sulfate).
Tetrachloride anhyd., (see Stannic chloride, anhydrous).
Titanium dioxide anatase, chalk-resistant, bgs., c.l., dlvd..lb. .24½- —
l.c.l., dlvd. .....lb. .25½- —
ceramic, bgs., c.l., dlvd.....lb. .22½- —
l.c.l., dlvd. .....lb. .23½- —
reg., bgs., c.l., dlvd.....lb. .22½- —
l.c.l., dlvd..... lb. .23½- —
metallurgical, nat., gran., bgs., c.l., f.o.b. Jacksonville, Fla. ton.120.00 - —
Niagara Falls, N. Y., c.l., ton.137.50 - —
5-ton lots .....ton.142.50 - —
ton lots .....ton.147.50 - —
rutile, nonchalking, bgs., c.l., dlvd. E lb. .26½- —
l.c.l., dlvd. E. ..... lb. .27½- —
Milled titanium dioxide, $7.50 per ton higher.
Hydride, cns., works .....lb. 7.95 - 9.00
Pigment, calcium-rutile base, reg., bgs., c.l., dlvd..lb. .09¼- —
l.c.l., works .....lb. .09¾- —
high-tinting, dms., c.l.....lb. .09 - —
l.c.l. ..... lb. .09½- —
Tetrachloride, tech., dms., c.l., works..lb. .40¾- —
l.c.l., works ..... lb. .43¾- —
tanks, works ..... lb. .39¾- —
dl-a-Tocopherol, bots. .....kilo.149.65 - —
Acetate .....kilo.136.00 - —
d-a-Tocopherol acetate .....kilo.185.00 - —
d-a-Tocopherol acid succinate..kilo.165.00 - —

o-Tolidine, base, paste, 100% basis, kgs lb. 1.35 - —
Dry, 100% basis, kgs lb. 1.40 - —
Hydrochloride, paste, 100% basis, lb. 1.35 - —
Tolu balsam, cns ..... lb. 4.25 - 4.50
Toluene (see Toluol).
p-Toluenesulfonamide, powd., dms., works lb. .70 - —
m-Toluidine, dms., c.l., works, frt. alld lb. .79 - —
l.c.l., same basis ..... lb. .80 - —
tanks, same basis ..... lb. .78 - —
o-Toluidine, dms., c.l., works, frt. alld lb. .23 - —
l.c.l., same basis ..... lb. .24 - —
tanks, same basis ..... lb. .22 - —
p-Toluidine, flake, dms., frt. alld lb. .64 - —
solid, dms., frt. alld ..... lb. .60 - .61
Toluol, coaltar, indust. or nitration, tanks, works:—
Bethlehem, Pa. .....gal. .34 - —
Birmingham dist..... gal. .32 - —
Chicago, dist ..... gal. .32 - —
Cleveland dist..... gal. .32 - —
Geneva, Utah ..... gal. .26 - —
Johnstown, Pa..... gal. .32 - —
Lackawanna, N. Y.... gal. .35 - —
Lone Star, Tex ..... gal. .33 - —
Toluol, coaltar, indust. or nitration, tanks, works:—
Lorain, Ohio ..... gal. .32 - —
Middletown, Ohio ... gal. .33½- —
Minnequa, Colo. .... gal. .32 - —
Philadelphia dist..... gal. .34 - —
Pittsburgh dist ..... gal. .32 - —
Sparrows Point, Md... gal. .34 - —
Terre Haute, Ind .... gal. .35 - —
Youngstown, Ohio ... gal. .32 - —

Toluol, coaltar, petroleum, indust., 2', tanks, works:—Albany, N.Y. gal. .35 - —
Bayonne, N. J..... gal. .34 - —
Baytown, Tex..... gal. .33 - —
Chicago, Ill. ..... gal. .38 - —
Detroit, Mich ..... gal. .35 - —
Houston, Tex ..... gal. .33 - —
Philadelphia, Pa..... gal. .34 - —
Providence, R. I..... gal. .35 - —
Wood River, Ill. ..... gal. .25 - —
2,4-Tolylenediamine, cryst., fib. dms., c.l., frt. alld lb. .97 - —
l.c.l., frt. alld ..... lb. 1.00 - —
powd., fib. dms., same basis....lb. 1.60 - —
Tonka beans, Angostura, cks....lb. 1.65 - 1.80
Brazilian, Surinam cs .... lb. 1.00 1.95
Totaquine, 100-oz. lots, cns ..... oz. .42 - —
Toxaphene, dms., c.l., t.l., works lb. .20 - —
l.c.l., l.t.l., works ..... lb .26 - —
Triacetin, dms., c.l., dlvd. E. of Rockies lb. .39 - —
l.c.l., same basis ..... lb. .40 - —
tanks, same basis ..... lb. .37 - —
Tributyl citrate tech., non-ret. dms., c.l., frt alld. E. of Denver lb. .42 - —
l.c.l., frt. alld E. of Denver. lb. .43 - —
tanks, frt. alld E. of Denver. lb. .40 - —
Phosphate, dms., c.l., works .. lb. .52 - —
l.c.l., same basis ..... lb. .53 - —
tanks, same basis ..... lb. .50 - —
Tributylamine, cms., c.l., works lb. .67 - —
l.c.l., same basis ..... lb. .68 - —
tanks, same basis ..... lb. .65 - —



We like to keep YOUR products "on the beam"

Over the past fifty years of specializing in the production and application of white oils, petrolatums and petroleum sulfonates, it is only natural that we should find many ways that industries can use our products to make *their* products better.

Take, for example, our development of white oils fortified with Vitamin E to assure outstanding stability against odor and color development. Through the use of this Sonneborn improvement, pharmaceutical and cosmetic manufacturers, to name just two industries, give their products longer shelf life and greater saleability.

While our regular line contains many different types and grades of white oils, petrolatums and sulfonates, we specialize in tailor-making these products to fit precise needs. No matter what your problem may be, if it relates to a white oil, a petrolatum or a sulfonate—chances are we can supply a product that's exactly right for you . . . a product that will help keep *your* product "on the beam."

A Product of Sonneborn RESEARCH

L. SONNEBORN SONS, INC. • NEW YORK 10, N. Y.

White Oil, Petrolatum & Sulfonate Div.
L. SONNEBORN SONS, INC., Dept. J
300 Fourth Avenue, New York 10, N. Y.

Gentlemen:

Will you please send me Technical Data on the following:

☐ "General Information on White Mineral Oils" I. R. Bulletin "A"

☐ "General Information on Petrolatums" I. R. Bulletin "B"

☐ "General Information on Petroleum Sulfonates" I. R. Bulletin "G"

What can you do to help me solve this problem?

_____

_____

_____

Name.....

Company.....

Address.....

City.....Zone.....State.....

Trichlorobenzene, dms., c.l., frt. alld. E, lb. .14½ - —
t.c.l., frt. alld. E ..... lb. .15½ - —
tanks, frt. alld. E ..... lb. .13 - —
Prices in the West 1¾c. higher.
Trichloroethylene, dms., c.l., or t.l. works, frt. equald lb. .11¾ - —
t.c.l., dlvd. E ..... lb. .13¾ - —
tanks, works, frt. equald .... lb. .10¾ - —
1,1,1-Trichloroethane, dms., c.l., works lb. .13½ - —
t.c.l., works ..... lb. .16¼ - —
tanks, works ..... lb. .12½ - —
Tricholine citrate 65% soln., ret. cbys. works frt adjusted lb 1.40 1.45
Tricresyl phosphate, coaltar, dms. c.l., dlvd lb. .36½ - —
t.c.l., dlvd ..... lb. .37½ - —
tanks, dlvd ..... lb. .34½ - —
petroleum, dms., c.l., dlvd lb. .36½ - —
t.c.l., dlvd. ..... lb. .37½ - —
tanks, dlvd. ..... lb. .34½ - —
Triethanolamine, dms., c.l., dlvd. E lb. .24 - —
t.c.l., same basis ..... lb. .25 - —
tanks, same basis ..... lb. .22 - —
Triethylamine, dms., c.l., works, dlvd. E lb. .47 - —
tanks, same basis ..... lb. .45 - —
Triethyl citrate, refd., tech., nonret. dms., c.l., frt. alld. E. of Denver lb. .45¾ - —
t.c.l., frt. alld. E. of Denver, lb. .46¾ - —
tanks, frt. alld. E. of Denver, lb. .43¾ - —
Triethyl phosphate, dms., c.l., dlvd. lb. .40 - —
t.c.l., dlvd. ..... lb. .41 - —
tanks, same basis ..... lb. .38 - —
Triethylene glycol, dms., c.l., dlvd. E lb. .20½ - —
t.c.l., same basis ..... lb. .21½ - —
tanks, same baris ..... lb. .18½ - —
Triethylenetetramine, dms., c.l., dlvd. E lb. .49 - —
t.c.l., dlvd. E ..... lb. .50 - —
tanks, dlvd. E ..... lb. .47 - —
Tri-isopropanolamine, dms., c.l., dlvd. E. lb. .22¾ - —
t.c.l., dlvd. E ..... lb. .23¾ - —
tanks, dlvd. E ..... lb. .20¾ - —
Trimethylamine 25-40% soln., dms., c.l., works, frt equald., 100% basis lb. .42 - —
t.c.l., works, frt equald, 100% basis lb. .42½ - —
tanks, works, frt. equald, 100% basis lb .33 - —
Trioxane, pure, dms., c.l., t.l., dlvd. E lb. .50 - —
t.c.l., dms., dlvd. E lb. .51½ - —
Tripentaerythritol, bgs., t.c.l., works, lb. .35 - —
Triphenyl phosphate, bbls., c.l., frt. equald lb. .40 - —
Triphenylguanidine, bbls., works lb. .90 - —
Tripropylene glycol, dms., c.l., frt. alld E lb. .20½ - —
t.c.l., frt. alld. E lb .21½ - —
Prices 1c. per lb. higher in West.

Trisodium fluoroacetate (see Sodium fluoroacetate, tribasic).
Trisodium Phosphate (see Sodium phosphate tribasic).
dl-Tryptophane, fib. ctns., works, kilo.165.00 - —
Tungsten metal powd., 98.8%, dms., dlvd lb. 4.50 - —
Turpentine, gum (see Protective Coatings market, Naval Stores).
Tyrothricin, USP, bots ..... gram. .75 - .85
t.c.l., frt. equald ..... lb. .41 - —

U

Unicorn root, false (see Helonias root).
True (see Aletris root).
Urea, 46% N, indust., bgs., c.l., t.l., dlvd. E ton.120.00 - —
t.c.l. dlvd. E, ex whse ton.140.00 - —
45% N, agricultural, bgs., c.l., (30 tons), dlvd., E ton.105.00 - —
Urea-ammonia liquor, A and B grades, N basis, tankcars, Belle, W. Va. ton.126.00 - —
Urea-ammonia, liquor, C grade, tankcars, same basis ton.124.50 - —
37 grade tankcars, same basis, ton.153.00 - —
Urethane, USP, dms. ..... lb. 1.45 - —
Uva-ursi leaves, bls. ..... lb. .12 - .14

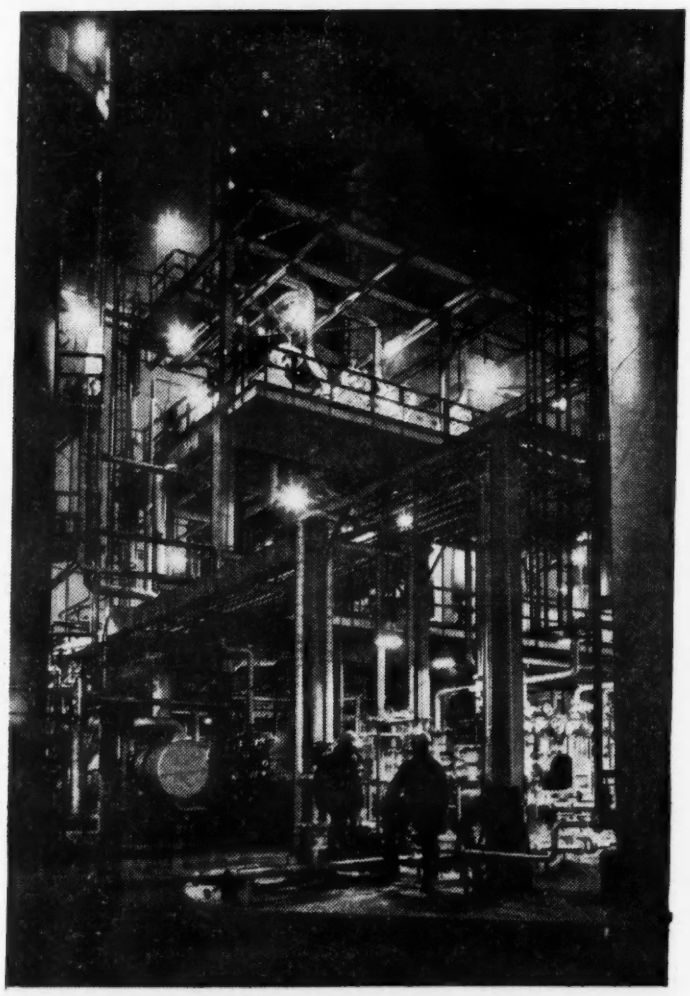
V

Valerian root, Belgian, bgs. ..... lb. .32 - —
dl-Valine, dms., works ..... lb.21.00 -27.50
Valonia beards, 40-42% tannin, bgs., ex dock ton.75.00 -76.00
cups, 28-30% tannin, bgs., ex-dock ton.58.00 - —
extract, powd., 63% tannin, bgs., ex-dock, duty extra lb. .08½ - —
Vanadium pentoxide, tech., dms., works lb. 1.28 1.33
Vanilla beans, Bourbon, tins ..... lb. 6.00 - 6.50
Mexican, cuts, tins ..... lb. 6.75 - 7.00
whole, tins ..... lb. 7.50 - 8.00
Tahiti, cs. ..... lb. 6.00 Nom.
Vanillin, ex eugenol, tins, 25-lb. lots, lb. 6.50 - 6.75
smaller lots ..... lb. 6.90 - 7.25
ex lignin, dms., 100-lb. lots ..... lb. 2.75 - —
smaller lots ..... lb. 2.80 - 2.85
Vinyl acetate monomer, 55-gal. dms., c.l., dlvd. E lb. .18½ - —
t.c.l., dlvd. E ..... lb. .19½ - —
tankcars, dlvd. E ..... lb. .16½ - —
tanktrucks, less than 4,000 gal., dlvd. E lb. .17½ - —
n-Butyl ether, tech., dms., c.l., works lb. .28 - —
t.c.l., works ..... lb. .30 - —
tanks, works ..... lb. .27 - —
Chloride monomer, tanks, works lb. .11 - .12
Ether, USP, anasthesia, bots., 50 c.c., hospitals, bot 1.12 - —
75 c.c. ..... bot 1.56 - —
tech., dms., c.l., works ..... lb. .26 - —
c.l., works ..... lb. .28 - —
tanks works ..... lb. .25 - —
Isobutyl ether, tech., dms., c.l., works lb. .28 - —
t.c.l. works ..... lb. .30 - —
tanks works ..... lb. .27 - —
Methyl ether, cyls., works ..... lb. .23 - —
tanks works ..... lb. .20 - —
Cylinders are sold outright, or if shipped against deposit, a free period of 60 days is allowed; and if empties are returned prepaid and in good condition within that period, full refund is made
Propionate monomer, dms., c.l., dlvd lb. .49 - —
t.c.l., same basis ..... lb. .50 - —
tanks, same basis ..... lb. .47 - —
Trichloride (see Trichloroethane).
2-Vinylpyridine, 10 dms. to tanks, works lb. 1.40 - —
1 to 9 dms, works ..... lb. 1.50 - —
tanks, works ..... lb. 1.38 - —
Vinyltoluene, dms., c.l., frt. alld ..... lb. .18½ - —
t.c.l., frt. alld ..... lb. .19½ - —
tasks, frt. ald ..... lb. .16½ - —
Viosterol, in alcohol, 1,000,000 D units per gram, bots., lots of 10 billion USP units, 1,000,000 units. .025 - —
lots of 1 billion USP units, 1,000,000 units. .03 - —
lots of less than 1 billion USP units 1,000,000 units. .035 - —
in nat., vegetable oil, 400,000 to 1,000,000 D units per gram, bots., lots of 10 billion USP units 1,000,000 units. .02 - .04¾
lots of 1 billion USP units, 1,000,000 units. .025 - .05¼
lots of less than billion USP units, 1,000,000 units .03 - .05¾
Vitamin A acetate, syn., crystalline, beads 500,000 A units per gram gram. .07¼ - —
dry, 500,000 units per gram, kilo lots kilo.67.50 - —
325,000 units per gram, same basis kilo.43.88 - —
250,000 units per gram, same basis kilo.33.75 - —
Dry vitamin A acetate in less than kilo lots, $2.50 per kilo higher in all potencies
liq., in oil, 1,000,000 A units per gram 1,000,000 units. .10 - —
Palmitate, liq., 1,000,000-1,800,000 A units per gram 1,000,000 units. .10 - —
in oil, 1,000,000 A units per gram 1,000,000 units. .10 - —
B_1 (see Thiamine hydrochloride).
B_2 (see Riboflavin).
B_{12} complex natural (see Rice bran concentrate and Yeast).
B_{12} crystalline, 1-gram or 5-gram vials gram.245.00 - —
oral grade solids, in containers of 1 and 5 grams of B_{12} activity gram.185.00 - —
C (see Acid, ascorbic).
D (see Oils, codliver and fish-liver Calciferol, and Viosterol)
D_2, dry 850,000 units per gram, kilo lots kilo.42.50 - —
less than kilo lots kilo.45.00 - —
E (see a-Tocopherol and Oil, wheat germ).
G (see Riboflavin).
H (see Biotin).
K Active (see Menadione).
K_1, 25 gram bots ..... gram. 4.50 - —
Violet methyl toner (see Blue methylviolet toner)
V.M.&P. naphtha (see Petroleum naphtha).

W

Wahoo root, bark, bls. ..... lb. 2.25 - —
Warfarin, 0.5%, dms., 50-lb. lots, dlvd lb. 1.95 - —
25-49-lb. lots, N. Y. or Chicago, lb. 2.05 - —
5-24-lb. lots, cns., N. Y. or Chicago lb. 2.15 - —
H (see Biotin)
K, Active (see Menadione).
K_1, 25 gram bots ..... gram. 4.50 - —
Wattle bark, fair average, African, bales, ex dock ton.99.00 - —
merchantable, bales, ex dock.ton.96.00 - —
extract, liq., 35% tannin, bbls lb. .09¾ - .10
solid, E. Africa, 60% tannin, bgs., ex dock, duty extra lb. .09¾ - —
S. Africa, 60% tannin, bgs., ex dock, duty extra lb. .10 - —
Wax, amorph. (see Wax microcrystalline).
Bayberry, bgs ..... lb. .45 - .47
Bees, crude, African, bgs. ..... lb. .68 - .70
Brazilian, bgs. ..... lb. .70 - .72
Central American, bgs. ..... lb. .69 - .70
Chilian, bgs. ..... lb. .70 - .72
refd., USP, bleached, white bricks, 100-lb. ctns lb. .80 - .82
slabs, 100-lb. ctns ..... lb. .79 - .81
yellow bricks, 100-lb. ctns. lb. .73 - .75
slabs, 100-lb. ctns ..... lb. .72 - .74
Candelilla, crude, bgs. ..... lb. .54 - .56
refd., bgs. ..... lb. .57 - .59
Powdered candelilla, 20 mesh, 7c. per lb. higher, 80 mesh, 7c.; 100-200 mesh, 8c.
Carnauba, chalky, bgs., ton lots. lb. .58 - .60
North country No. 2, crude, bgs., ton lots lb. .68 - .69
refd., pure, bgs., ton lots lb. .74 - .76
No. 3, Ceara, crude, bgs., ton lots lb. .62 - .64
refd., pure, bgs., ton lots lb. .69 - .70
tech., bgs., ton lots lb. .65 - .66
Parnahyba, crude, bgs., ton lots lb. .63 - .64
refd., pure, bgs., ton lots lb. .69 - .71
yellow No. 1, Ceara, bgs., ton lots lb. 1.14 - 1.16
Parnahyba, bgs., ton lots lb. 1.16 - 1.18
Powdered carnauba wax price differentials same as powdered candelilla.
Japan, cs. ..... lb. .47 - .48

ON-STREAM...DAY AND NIGHT



...to serve your needs for SINCLAIR Toluol, Xylol and Paraxylene

The Udex extraction unit of Sinclair Refining Company at its refinery at Marcus Hook, Pa., operates on-stream 24 hours a day. Toluol, Xylol and Paraxylene produced from this Udex unit meet important industrial needs for high purity petrochemicals in quantity.

When your manufacturing processes call for fast and reliable service and top quality in aromatic hydrocarbons, Sinclair Chemicals, Inc. is ready to serve you. For complete information call or write to:

SINCLAIR CHEMICALS, INC.

(Affiliate of Sinclair Refining Company)

600 Fifth Avenue, New York 20, N. Y. • Phone Circle 6-3600
155 North Wacker Drive, Chicago 6, Illinois • Phone Financial 6-5900

Wax, microcrystalline, 170-175° F., m.p., ASTM, penetration 15-20 ctns., 20,000 lbs., group 3, works. lb. .14 - .15
smaller lots, same basis. lb. .15 - .16
black, ctns., 20,000 lbs., same basis lb. .12½- .13½
smaller lots, same basis. lb. .13½- .14½
white, ctns., 20,000 lbs., same basis lb. .25 - .26
smaller lots, group 3, works lb. .26 - .27
180°-185°F., m.p., ASTM, penetration, 7-11; amber, ctns., 20,000-lb. lots, same basis. lb. .17 - —
smaller lots, same basis. lb. .18 - —
black, ctns., 20,000 lbs., same basis lb. .15½- —
smaller lots, same basis. lb. .16½- —
white, ctns., 20,000 lbs., same basis lb. .28 - —
smaller lots, same basis. lb. .29 - —
100°-195°F., m.p., ASTM, penetration 2-7, amber, ctns., 20,000 lbs., same basis lb. .21 - —
smaller lots, same basis. lb. .21½- —
black, ctns., 20,000 lbs., same basis lb. .19 - —
smaller lots, same basis. lb. .19½- —
white, ctns, 20,000 lbs., same basis lb. .34½- —
smaller lots, same basis. lb. .35½- —
Montan, dom., refd., bgs lb. .27 Nom.
imp., crude, Bohemian bgs lb. No prices.
German, bgs lb. No prices.
Ouricury, refd., pure, bgs lb. .80 - .82
tech., bgs lb. .74 - .76
Paraffin (see P).
Spermaceti, blocks, cs lb. .30 - .33
cakes cs. lb. .31 - .34
Sugar cane, dom., refd., slabs, 80 lbs. ctns., works lb. .65 - .75
spot lb. .67¼- .72¼
White lead (see Lead, White).
White pine bark, rossed, bls lb. .18 - .19
White precipitate, USP powd., dms., lb. 6.55 - —
Whiting (see Calcium carbonate).
Wild cherry bark, thin, nat., bls. lb. .18 - .19
rossed, bls lb. .19 - .22
Witch hazel, bark, bls lb. .16 - .17
leaves, bls lb. .20 - —
Wollastonite, fine, bgs., c.l., works. ton 39 50 - —
l.c.l., ex whse ton 56 00 - —
medium, bgs., c.l., works ton 27 00 - —
l.c.l., ex whse ton 44 00 - —
Woolfat, crude (see Degras), USP (see Lanolin).
Wormseed, American, bgs. lb. .20 - .25
Levant, bgs. lb. 4.25 - 4.50

X

Xylene (see Xylol).
Xylenol, cryst., 53°-60°C., m.p., dms., l.c.l., works lb. .40 - —
56°-58°C., dms., l.c.l., works, frt. equald lb. .30 - —
45°-47°C., dms., c.l. same basis, lb. .212 - —
l.c.l., same basis lb. .215 - —
tanks, same basis lb. .199 - —
Fraction, b.r. 7°-9°C., dry above 227°C., dms., c.l., same basis gal. .96 - —
l.c.l., same basis gal. .99 - —
tanks, same basis gal. .85 - —
dry at or below 227°C., dms., c.l., same basis gal. 1.11 - —
l.c.l., same basis gal. 1.14 - —
tanks, same basis gal. 1.00 - —
Xylidines, mixed, o-m-p, dms., c.l. or t.l., works lb. .39 - —
l.c.l. same basis lb. .40 - —
tanks, same basis lb. .38 - —
Xylol, coaltar, indust., tanks, works:—
Bethlehem, Pa. gal. .34 - —
Birmingham dist. gal. .32 - —
Chicago dist gal. .35 - —
Cleveland dist. gal. .34½- —
Geneva, Utah gal. .27 - —
Johnstown, Pa. gal. .33 - —
Lackawanna N. Y. gal. .35 - —
Lone Star, Tex gal. .33 - —
Lorain, Ohio gal. .33 - —
Middletown, Ohio gal. .34 - —
Minnequa, Colo gal. .34 - —
Philadelphia dist. gal. .34 - —
Pittsburgh dist. gal. .32 - —
Sparrows Point, Md gal. .34 - —
Terre Haute, Ind gal. .35 - —
Youngstown, Ohio gal. .32½- —
petroleum, indust., tanks, works:—
Bayonne, N. J. gal. .34 - —
Baytown, Tex. gal. .33 - —
Chicago, Ill. gal. .35 - —
Philadelphia, Pa. gal. .34 - —
Providence, R. I. gal. .35 - —
Wood River, Ill. gal. .35 - —

Y

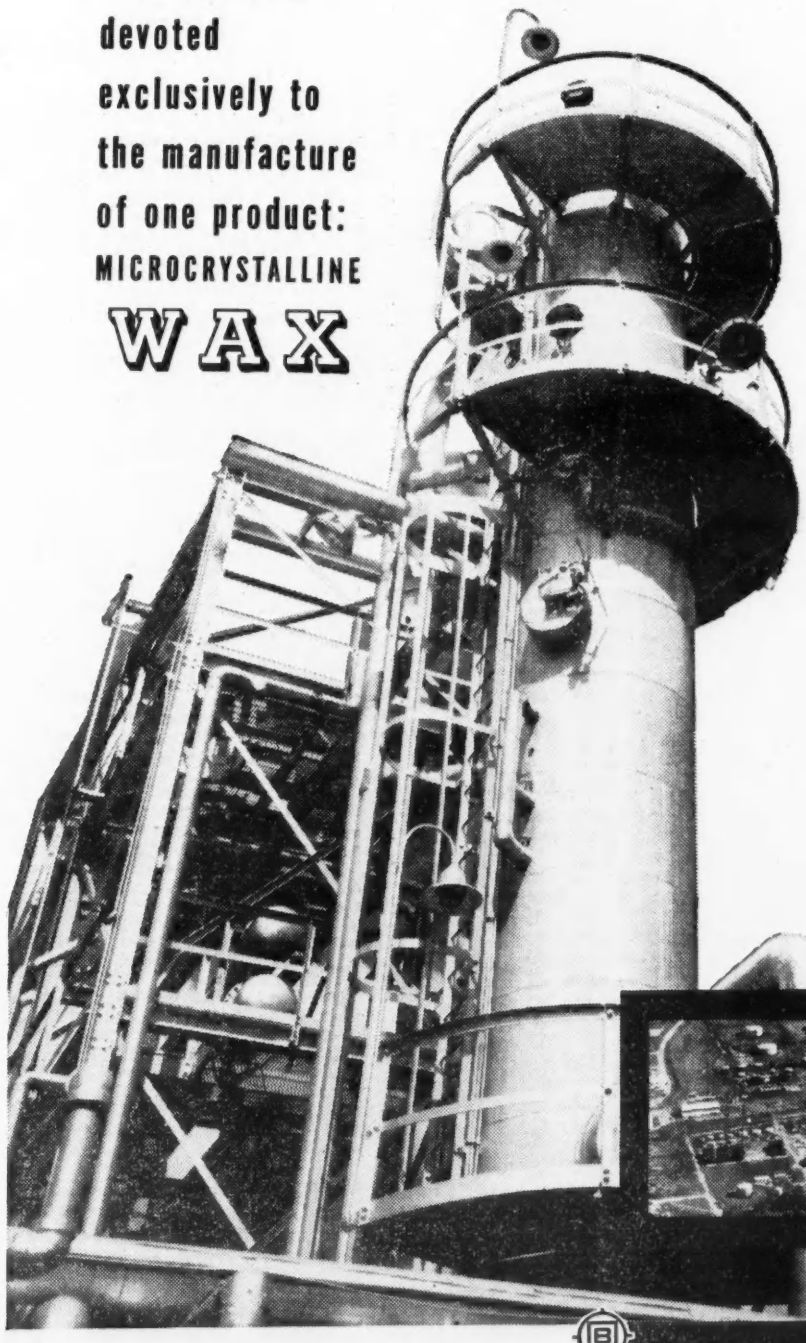
Yara yara, ens. lb. 2.15 - 2.65
Yeast, brewer's, dry, USP, 50 int'l B units per gram, 100-lb. dms lb. .47 - —
90 Int'l B units per gram, 100-lb. dms lb. .52 - —
260 int'l B units per gram, 100-lb. dms lb. .56 - —
300 int'l B units per gram, 100-lb. dms lb. .60 - —
Yellow, barium chromate, CP, bbls., dlvd N. of Tenn. and N. C., E. of Miss., including Davenport, Minneapolis, Rock Island, St. Louis, St. Paul lb. .35 - —
Yellow barium chromate price differentials in other States and city zones are those for chrome yellow below.
Benzidine, AAA, bbls., dlvd lb. 2.10 - —
AAOT, bbls., dlvd lb. 2.85 - —
Lightfast, bbls., dlvd lb. 3.15 - —
Cadmium, CP, all shades, bbls., frt. alld. E. of Rockies. lb. 2.85 - —
Cadmium selenide lithopone, all shades, bbls., frt. alld. E. of Rockies lb. 1.15 - —
Cadmium yellows, Los Angeles and San Francisco, ex whse., 1c. per lb. higher.
Chrome, CP, bbls., dlvd. W. of Tenn., and N.C., E. of Miss., including Davenport, Minneapolis, Rock Island lb. .33 - .33½
Dlvd. Ala., Fla., Ga., La. (Shreveport 1¼ higher); Miss., N. C., S. C., Penna., Dallas, Tex. 1¼c. higher; Ft. Worth, Tex. 1½c. higher; El Paso Tex. 2c. higher; Cedar Rapids, Des Moines, Kansas City, Lincoln, Omaha, St. Joseph 1.6c. higher; dlvd. Pac. Coast, for Denver, Pueblo, Salt Lake City, Wichita prices are equalized with Chicago.
Yellow hansa, 10 g. bbls., same basis as yellow, chrome lb. 2.25 - —
G pigment, bbls lb. 1.91 - —
Iron oxide, natural, French type, bgs., c.l., works lb. .06 - —
Peruvian type, bgs., l.c.l. lb. .0205- .0345
pure, bgs., c.l., works lb. .11½- —
l.c.l., works lb. .11¾- —
Mercury oxide, bbls., 1,000-lb. lots lb. 5.58 - —
smaller lots lb. 5.60 - —
Ocher (see Yellow, iron oxide, natural).
Zinc (chromate), bbls., dlvd lb. .27 - .27½
basic, dlvd lb. .31 - .32½
Yerna santa leaves, bls lb. .40 - .47
Yohimbine hydrochloride, bots, tin. oz. 4.30 - 4.50

Z

Zein, bgs., 36,000-lb. lots or more lb. .38 - —
1,000 to 36,000 lb. lots, works lb. .40 - —
smaller lots, works lb. .43 - —
Zinc acetate, NF VIII, dms lb. .53 - —
tech., dms., works lb. .27 - —
Borate, bgs., c.l., dlvd. E lb. .192 - —
l.c.l. dlvd E lb. 202 - —
Chloride, NF, gran., dms lb. .42 - —
precipitated, powd., dms lb. .26 - —
soln., 50%, dms. c.l., works. 100 lbs. 5.50 - —
l.c.l. works 100 lbs. 6.10 - —
tanks works 100 lbs. 4.85 - —
tech., fused, dms., c.l., works 100 lbs. 10.10 - —
l.c.l., works 100 lbs. 10.60 - —
gran. fib. dms., c.l., works. 100 lbs. 10.85 - —
l.c.l., works 100 lbs. 11.35 - —
Chromate (see Yellow, zinc).
Cyanide, kgs., 1,000-lb. lots or more, works lb. .523 - —
smaller lots, works lb. .543 - —
Zinc dust, pigment, bbls., c.l., works. lb. .17½- —
l.c.l., works lb. .18½- —
Fluoride, bbls., works lb. .49 - .50
Hydrosulfite, dms., c.l., frt. alld lb. .21½- —
l.c.l., frt. alld lb. .22 - .37½
Metal, prime western slabs, E. St. Louis lb. .13½- —
New York lb. .14 - —
Naphthenate, liq., 8% Zn., dms., frt. alld lb. .24½- —
10% Zn dms frt alld lb. .30 - —
Oxide pigment, American process, lead-free, bgs., c.l., frt. alld lb. .14½- —
l.c.l., same basis lb. .15½- —
leaded, 35%, bgs., c.l., mills, frt. alld lb. .15½- —
l.c.l., same basis lb. .16½- —
50%, bgs., c.l., same basis lb. .15⅞- —
l.c.l., same basis lb. .16⅞- —
French process, coml., green seal, bgs., c.l., frt. alld lb. .15¾- —
l.c.l., same basis lb. .16¾- —
red seal, bgs., c.l., same basis lb. .15¼- —
l.c.l., same basis lb. .16¼- —
Oxide, French process, white seal, bgs., c.l., same basis lb. .16¼- —
l.c.l., same basis lb. .17¼- —
USP, ctns., c.l., frt. alld lb. .17¼- —
l.c.l., same basis lb. .18¼- —
Zinc oxide Pac. coast prices 1c. higher.
Phenolsulfonate, NF, gran., dms. lb. .39 - —
powd., dms lb. .42 - .49
Zinc resinate, precip., 7.2-7.6% Zn., dms. frt alld lb. .29 - —
Silicofluoride, dms., works lb. .12½- .14
Stearate, tech., USP, ctns., c.l. lb. .39 - —
lb. .39 - —
l.c.l. lb. .40 - .44
Sulfate, powd., monohydrate, 36% Zn, bgs., c.l., dlvd E 100 lbs. 8.75 - —
l.c.l., dlvd E 100 lbs. 9.75 - —
Zinc sulfate in bbls. 40c. higher.
USP, gran dms lb 26 - —
Sulfide, pure, bgs., c.l., dlvd lb. .2530- —
Undecylenate dms lb 2.25 2.50
Yellow (see Yellow, zinc).
Zinc-ammonium chloride, bgs., c.l., works 100 lbs. 9.65 - —
bbls., c.l., works 100 lbs. 10.25 - —
l.c.l., works 100 lbs. 10.75 - —
Zinc-formaldehyde sulfoxylate, basic, dms., c.l lb. .25½- —
l.c.l lb. .26 - .41½
normal dms., l.c.l., works lb. .52 - —
Zircon (G), gran bgs., c.l., works. lb. .03½- —
5 tons to c.l., works lb. .03¾- —
1 ton to 9,999-lb lots, works. lb. .04 - —
smaller lots works lb. .04½- —
milled, bgs., c.l., works lb. .04½- —
5 tons to c.l., works lb. .04⅝- —
1 ton to 9,999-lb lots, works. lb .04¾- —
500-1,999 lb. lots, works lb. .07½- —
Zircon (G) in barrels 1c higher.

—Continued on page 67

two refineries devoted exclusively to the manufacture of one product: MICROCRYSTALLINE WAX



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Volume 169 | May 7, 1956 | No. 19

Comes Now the War on Pests

Now is the time for all good pesticiders to come to the defense of the countryside. It is not necessary that there be stressing of what the United States Forest Service sees to be done or plans to do. Everybody knows that the pests are getting ahead slowly but surely and must be combatted. It is good to know that various organizations of conservationists are vigorously pushing plans along the lines of the Forest Service programs, currently designed at least to reduce the havoc wrought in wooded areas by the gypsy moth. Airplane spraying of woodlands in northern New Jersey is one of the specially pushed plans, the state legislators having been kindly disposed toward a request for increased funds for such activities. Operations are expected to get started in this month, when the biggest and best battling of bugs can be done.

That goes also for making war on weeds. It is much more effective to fight those pests in their infancy; just as it is to fight the tent caterpillars before they leave their cradles. Weed-control parleys are being held in communities all over the country, especially in localities where water weeds are particularly troublesome. Other weed pests are steadily getting more attention. The New York legislature recently passed, and the governor signed, a bill which empowers county boards to appropriate funds for the elimination of noxious weeds. The same should be done in every state, and all local officials should be continuously prodded into necessary action.

All who are interested in the control of weeds, especially of the roadside varieties, can find something to think about in what the New York executive said when he signed the "hayfever" bill about the high food-bearing value for birds or aquatic life of some weeds which might be noxious to some persons, and his remark that chemicals used to combat weeds "might render a serious threat to wildlife and fish life." Sportsmen's organizations have taken various actions with reference to that aspect of several pesticidal practices. In the case of weeds, it could be that the most satisfactory procedure lies in the suggestion of the North Carolina State College extension service that cotton-planters use geese to keep their fields free from weeds. Geese, it is said, are particularly fond of infant weeds as a food.

There is much good information on an increasingly serious aspect of pesticidal practices in a recently published technical bulletin of the United States Department of Agriculture—"Effects of Certain Insecticides in Soil on Crop Plants"—which reports studies conducted by the department in cooperation with the agricultural experiment stations of four states typical of the major regions of this country. A similar study should be applied to herbicides; in fact, studies should be carried on in all areas of pesticidal practices by the manufacturers of crop-protecting agents in collaboration with those who produce fertilizers and other crop-promoting agents. The work of the governmental agencies has pointed the way to handle a steadily increasing need for more practical knowledge with relation to the chemical services for agriculture. The trail should be followed far and wide by private industry. The beneficial serving of agriculture is already left too much to government.

For Intelligent Foreign Aid

Recent expressions having to do from various points of view with a foreign aid policy and program for the United States testify to a growing agreement that the needs at both ends is for intelligent foreign aid on the part of this country. There is not, however, even a close approach to agreement on where the aid should be given or what should be the nature thereof. "Intelligent" seems to have a wide variety of meanings and innumerable connotations. Some of those meanings are very difficult to fit into any popular acceptance of the term.

Two basic differences have become apparent. One of them has to do with the essentialness of free trade throughout the world. The other is based on the contention that the whole world needs to be converted to the USA concept of what is a desirable and necessary method of living—some call it "standard"—and the means of meeting the cost thereof, no recognition being manifested with relation to the fact that the majority of the peoples who would like to have such a way of life are strongly of the opinion that it costs too much.

There is a growing feeling among far-thinking impartial assessors of the matter that trade is much better than aid (in the sense of governmental financing). There is a feeling that a lesson should be learned from the experiences under giving of aid to agriculture in this country. It is to be expected, according to that belief, that similar aiding of other countries, whether because they are allies, are desirable as allies, or are underprivileged or underdeveloped, would result similarly in their producing more than they could dispose of, with a consequent increase in the already heavy competition of foreign products for USA goods in world markets—including those in this country. The same point is applicable to privately provided financial and technical assistance and is one of the most impressive of the contributions to the support of the suggestions that the American wage system be developed in all countries deemed to be deserving of economic aid. It must be known that the promoters of that suggestion also argue that, as foreign wage scales may consequently be raised, those in this country are to be moved up to maintain the status quo of present differences. There may be more than a trace of intelligence in such a scheme of aid; but, in keeping with the general matter of acquiring intelligence, it has somewhat plain prediction of an excessive cost.

Something in the way of an intelligent approach to the subject of foreign aid is offered in the proposal by the Secretary of State that the North Atlantic Treaty Organization be expanded into economic and political areas. The idea apparently originated in USA diplomatic circles in Europe, but seems to have got some sort of a start at home about the same time. The idea has some basic relation to the Colombo plan, but would have a larger measure of cooperative activities.

Despite the widespread feeling that the United States must become more active in worldwide activities, a feeling arising from more or less intelligent concepts of the Soviet economic campaign, there is reason, even on the same basis, to urge that the United States take the lead in actively promoting the organization and functioning of a Western Atlantic friendship group with all the existing and proposed NATO objectives. A recent report from Moscow had it that the first deputy premier was soon to be sent on a Latin-American extension of his recent trade-drumming tour of the Far East, designed primarily to cover Argentina, Brazil, and Chile.

There is more than a little to promote foreign aid thinking in the decision of the United States to become a member of the economic committee of the Baghdad defense pact. The thinking should be done especially by those who believe that the intelligent approach to the assisting of needy—or needed—foreign countries is through channels of business, not of government. Of course, there is a demand for a great deal of intelligence of a special type in the constructing of private business programs of foreign aid with full knowledge that the results of such assistance inevitably will be manifested throughout the markets of the world. The biggest need for the application of intelligence is in connection with the concurrent development of production and consumption capacities in the countries assisted.

The big job for private business right now is to see that President Eisenhower's plan for a nonpartisan study of the foreign aid subject by persons outside the government, designed to chart a long-term policy and program, is brought to full fruition as speedily as possible—and as intelligently.

Washington Talks It Over

Despite Apparent Surplus of $3 Billion by June 30, Hopes for Income Tax Reduction Go Glimmering.

By Ralph L. Cherry

Chief, OPD Washington Bureau

On the basis of current information, it now appears that the federal treasury will wind up the fiscal year on June 30 with a surplus of around $3 billion and possibly more. This has been the signal for renewed demands for a reduction in income taxes, but the chances of this being done are less now than they were last January when it was thought the surplus would amount to only about $200 million.

Leaders in both the Democratic and Republican parties are talking down the idea of a tax reduction and in favor of applying the surplus towards payment of the public debt.

Primarily, the reasoning behind it is the fact that a lowering of the taxes would be inflationary in effect. The Federal Reserve Board only recently took cognizance of inflationary tendencies of the current easy money situation and raised rediscount rates.

But this is not to say that tax reductions next year are also unlikely if the Treasury revenues continue to run ahead of spending. There is definite feeling among tax experts in congress that federal tax policies are in need for a overhauling to bring about a more balanced economic growth.

Rep. Wilbur Mills of Arkansas, one of the best-informed members of the house tax committee, outlined some of the steps that could be taken in addressing the forty-fourth annual meeting of the Chamber of Commerce.

He thought the first bracket in the individual income tax schedule could be split and provide for a lower starting rate, and that the unrealistic rates in the top brackets could be revised downward to about 65 or 70 percent. The transferability of the carryover of net operating business losses has been a major contributing factor in the recent merger movement, he found, and should be corrected.

Accelerated depreciation allowances need to be limited to assets with normal useful lives somewhat greater than the five years now provided for, he added, and the dividend distribution credit should be eliminated in favor of some provision at the corporate level for putting dividend and interest payments on a par.

Government Battling Florida Pest

The federal government is moving swiftly to meet the threat to the Florida citrus crop brought on by the reappearance of the Mediterranean fruit fly. The entire state is to be put under a blanket quarantine and then supplementary regulations will be issued restricting or prohibiting interstate movement from actually infested or immediately threatened areas.

This is the second invasion of the dreaded pest in twenty-seven years and only time will tell whether it proves as costly as the 1929 invasion. The potent new insecticides developed during the interim may prove effective in shortening the emergency period and keeping the invader from spreading to the citrus belt itself, but a huge task faces the controllers.

Fumigation by either ethylene dibromide or methyl bromide may be used as a basis for certifying certain types of fruits and vegetables, and a vapor-heat treatment may be used to treat other designated products. Quick freezing or any equivalent freezing method is acceptable for any regulated product.

Selling US Farm Surplus Abroad

At the rate the Department of Agriculture has been signing up foreign governments to purchase American surplus farm crops with foreign currencies (public law 480), the goal will be reached long before the deadline.

Congress set up the program for a three-year period ending June 30, 1957, and told the department to seek about $1.5 billion in export commitments. With more than a year to go, the department has already signed up $1.2 billion of commitments.

A total of fifty agreements have been made with twenty-five countries. During the first year, seven agreements providing for sales of edible fats and oils were signed. They involved 131 million pounds of oils consisting of 118 million pounds of cottonseed oil and 13 million pounds of soybean oil.

From July 1, 1955, to April 13, 1956, agreements including cottonseed or soybean oil were signed with twelve countries. These involve purchase of roughly 700 million pounds.

Not all of this quantity will come from 1955-56 suppliers; 10 to 20 percent is expected to be deferred until after September 30, 1956. With allowance for deferred quantities, and for possible quantities to be included in agreements still under negotiation, exports of cottonseed and soybean oils in October 1955-September, 1956, under the agreements are expected to reach about 600 million pounds, or about 55 percent of total expected soybean and cottonseed oil exports.

Delays in Export Licenses

Exporters who have encountered delays in getting their export license applications approved by the Bureau of Foreign Commerce may find that the reason for it lies in ambiguities with respect to countries of destination. For example:

Applications covering proposed shipments to Taiwan (Formosa) or Hong Kong are sometimes supported by consignee statements which show the area of distribution of the goods as "Taiwan, China" or "Hong Kong, China."

Use of the word "China" suggests that redistribution may be proposed to the mainland of China, which is under communist control and to which no goods of US origin may legally be exported either directly or indirectly. Difficulties also arise when simply "Germany" or "Korea" is used.

Exporters should bear this in mind when applying for licenses to avoid delay and confusion. Also, exporters when shipping to the destination formerly known as Indochina, should specify which of the following areas is referred to: (a) Communist-controlled area of Vietnam and Laos; (b) Cambodia, the non-communist-controlled area of Vietnam or the non-communist-controlled area of Laos.

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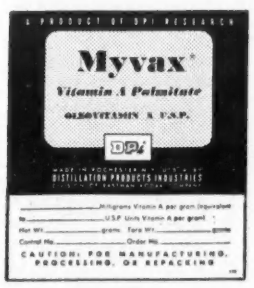
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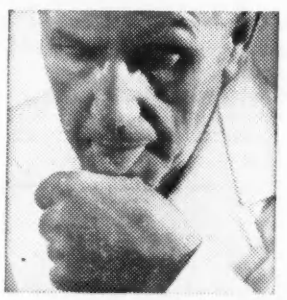

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Heavy Chemicals

The London copper market hit new lows in its current decline last week, as spot copper tumbled more than three cents below the pegged price for copper in this country. Weaker with world metal was custom smelters' copper and scrap in this country. Custom smelter prices were actually below prices established by producers. Weakness was attributed to an action by the Rhodesian Trust lowering fixed prices for copper.

Steel production continued to hover around the 100 percent level last week, and accounted for good movement of mineral acids for pickling, stainless steel, and other applications.

Petroleum, rayon, glass, and other demands also maintained strong, steady call for acids. Fertilizer demand showed some signs of revival, resulting in increased call from that direction for sulfuric acid and phosphoric acid.

The alkalies also enjoyed a brisk volume of business. One producer reported quarterly sales up from 18 to 22 percent during the first quarter. Chlorine demand was strengthened by increased seasonal inquiry for water and sewage treatment.

Currently high prices for copper sulfate were no deterrent to consumers, who continued to buy about all that was made. Industrial demand has held up well for months, and now, agricultural demand is becoming more active.

The American Paper and Pulp Association reported production for the week ended May 6 at 103.0 percent of theoretical capacity, as compared with the revised figure of 103.7 percent for the previous week and 99.5 percent for the corresponding week of last year.

Acid, Chromic—Producers reported that business in the midwest had not fallen off as sharply as had been expected when automobile production declined during the quarter.

Despite the fact that first quarter output of autos declined some 604,000 units from the comparable period of 1955, sales of acid for plating were reported to have declined only moderately so far.

The northeastern area reported continuing active demand, and withdrawals against contract commitments proceeded in good volume.

Acid, Hydrochloric — Demands for neoprene, polyvinyl chloride and other organic synthesis remained active. Steel processing also accounted for strong buying interest.

The supply position in the mid south was fairly well balanced, while in some sections of the southeast and southwest, stocks continued long, owing to large volume output of byproduct acid.

Acid, Hydrofluoric—Demand for steel, particularly for manufacture of stainless steel, as well as for government and glass industry accounts, kept this market strong during the week.

Acid, Nitric—Government requirements continued to play a key role in the market picture, as demand from that direction was maintained at a high level.

Inquiry for nitration of organics, and from the steel industry was also active. Large quantities were reported moving in all types of containers.

Acid, Phosphoric — Demand for food grade phosphoric acid held up well. Inquiry was reported to have picked up strongly for stockfeed supplements.

Fertilizer demand was said to have begun late this year, but looked now as if it would gain strength as the spring progressed.

Acid, Sulfuric—Industrial demand for steel, rayon, pigments, petroleum alkylation, alcohols, and other end uses held to near-record levels.

Agricultural interest was still not a strong spot in the end use pattern, but producers noted a definite improvement in consumption from that direction last week.

Steel output last week decline to an estimated 99.5 percent of capacity, or 2,450,000 tons, as against a near-record 100.5 percent of capacity, or 2,473,000 tons the previous week, according to the American Iron & Steel Institute.

Actual steel output one year ago last week was 96.6 percent of 1955 capacity, or 2,331,000 tons.

Calcium Chloride—There was little new business last week in this market. Producers did not expect business to pick up until the summer dust-laying season.

Chlorine—Demand for chlorination of organics such as glycols, pesticides, chlorinated solvents and intermediates, as well as paper and textile bleaching, kept shipments moving in large quantity.

Price Trends

Advanced

None

Reduced

Potassium stannate, 0.4c. per lb.
Sodium stannate, 0.5c. per lb.
Stannic chloride, 0.4c. per lb.
Stannous chloride, anhyd., 0.6c. per lb.
hydrous, cryst., ¾c. per lb.
Sulfate, 0.6c. per lb.
Tin, 2¾c. per lb.

Comparative Price Indexes

(100—1949 average)

Last week	Prev. week	Last month	May 6, 1955
101.57	101.57	101.15	98.36

For Current Prices see Page 9

Producers noted that from now on, a sharp seasonal rise will take place in consumption of chlorine for water and sewage treatment by municipalities.

Copper Sulfate—It was reported that currently high prices for copper sulfate caused by the high price of copper metal, had encountered little or no buyer resistance.

Industrial interest remained strong and active. Agricultural demand in the south, and for export to South America showed increased activity during the week. The north as yet remained dormant, as far as agricultural demand was concerned.

Ferric Chloride — Prices were stable. Withdrawals against old contracts continued in good volume. Demand for sewage treatment was expected to show some seasonal improvement.

Magnesium Sulfate—Business was routine. There continued to be competition with lower-priced imported material. Supplies were ample for current needs.

Potash, Caustic — Demand held strong all through the end use pattern. Supplies were in reasonably good balance. Quotations were unchanged.

It was expected that prices would hold at least until the new contract season for industrial potassium chloride, the raw material, June 1.

Potassium Carbonate—Although it was conceded that television set manufacture had declined during the first quarter, producers emphasized that specialty glass demand had held its own over the period.

Demand was generally good, with prices unchanged and steady. Future pricing was contingent upon June 1 schedules for raw materials.

Soda Ash—Glass demand of all kinds was a major factor in large quantity consumption of dense ash. Flat glass inquiry continued strong, for automotive and building end uses.

There was also a pickup in the manufacture of soft drink and beer bottles for the summer season.

Light ash consumption by the aluminum, phosphate, and paper industries also was strongly maintained. Supplies were judged plentiful for current needs.

Soda, Caustic—Producers were satisfied that since demand for chlorine had been strong over the past several months, interest in caustic had been correspondingly active.

Otherwise, it was pointed out, since both materials are derived from the same process, there could have been a lengthy supply of caustic.

However, stocks have been eaten up by strong demand from rayon, paper and pulp, chemical and other industrial sources. Prices held firm, with supplies adequate for current requirements.

Sodium Silicate—Current business was well maintained. Stocks moved readily to consumers in the detergent, boxboard, petroleum and other industries.

Producers indicated that they were well able to take on new business, however, as supplies were excellent. Prices continued without change.

Sodium Sulfate—Paper production has been running above 100 percent of capacity during the past few weeks, according to weekly figures supplied by the American Paper and Pulp Association.

This accounted for heavy withdrawals against stocks of saltcake by producers of kraft paper in particular. Most producers of saltcake reported that they were moving about all they could make.

Bichromate, rayon and Mannheim out-

Heavy Chemicals

put of cake continued at high levels, as the three production processes were being run at a good clip in order to take care of demand for primary products.

Tin Chemicals—With lower tin, potassium stannate was quoted at 69.7c. to 76.3c. per pound; sodium stannate, 56.6c. to 62c.; stannic chloride, 78.1c. to 79.1c.; stannous chloride, anhydrous, 90.3c. to $1.171; hydrous crystals, 79c. to 80c., and sulfate, 95.8c. to 97.8c. on Friday.

Nonferrous Metals

Aluminum—Building materials, consumer durable goods and transportation equipment again accounted for nearly half of the aluminum wrought products shipped by members of The Aluminum Association during the six months ending December 31, 1955.

Shipments for these major end-uses were 49.3 percent of the total, inching up from the 49.1 percent shipped in the first six months of 1955.

Gains in building materials (20.2 percent versus 19.2 percent in the first half of 1955) and transportation equipment (17.5 percent compared to 16.6 percent) more than offset a decrease from 13.3 percent to 11.6 percent in shipments of consumer durable goods such as household appliances, furniture, lighting fixtures and the like.

On a total volume basis, last-half 1955 shipments were 5.2 percent higher than in the first half. The rise in shipments for transportation equipment reflected the increasing use of aluminum by the automotive industry.

Association statistics also revealed that 15.3 percent of total wrought products went to distributors and jobbers, as against 14.5 percent in the first half; 9.8 percent for conversion into primary wrought products as compared to 8.5 percent.

Electrical uses remained steady, 7.7 and 7.6 percent, respectively; while machinery and equipment, commercial and industrial except electrical shipments declined to 4.7 percent from the first six month's percentage of 6.5. Packaging gained a fraction, 5 percent as against 4.9. Exports registered a loss in shipments, 1.3 percent for the first half, 0.8 in the second half of 1955.

End use statistics on castings released by the association indicate that 72.8 percent of the permanent mold castings shipped by association members during the last six months of 1955 went into transportation—motor vehicles, which compares with 69.7 percent in the first six months of 1955 and with 62.9 percent during the last six months of 1954.

Direct sales to military agencies and orders for Atomic Energy Commission constituted 1.6 percent of total end-use shipments of wrought products, slightly under the 1.8 percent shipped in the six-month period ending June 30, 1955.

Copper—The market was extremely unsettled last week. Domestic copper continued listed at 46c. per pound, delivered US destinations. However, the London market tumbled to a quotation of US equivalent of 42¾c.

Reason for the sharp decline of the London market was said to be a lower price fixed by the Rhodesian Selection Trust, Ltd., a group of African copper producers.

Custom smelter prices, long over the fifty-cent mark until just recently, were hard pressed to keep up to a forty-five cent level, running from ½c. to 1c. per pound under the pegged domestic price.

No. 2 scrap, usually about even with, or from one to two cents below primary copper for several months, plummeted, declining to a range of 35c. to 35½c. per pound.

Because of lower prices for scrap material, makers of brass and bronze ingots accordingly lowered prices from 1½c. to 2½c. per pound on their various products.

Mercury—Metal was relatively dormant. Spot material was priced at $268 to $270 per flask.

Silver—The market ended at 90¾c. per ounce, spot.

Tin—Straits metal fluctuated narrowly during the week, and was quoted at 96⅝c. per pound, spot on Friday.

Residue Tolerance Approved

A residue tolerance for basic copper carbonate of three parts per million when used on pears after harvest was tentatively approved last week by the Food and Drug Administration. Interested persons were given thirty days from the date of publication of the order in the *Federal Register* April 27 to submit written objections.

Chemical Funds Granted Turkey, Vietman, Pakistan

The International Cooperation Administration has issued authorization to Turkey to purchase $2,545,000 of chemicals and chemical preparations, $1,634,000 of medicinal and pharmaceutical preparations, $200,000 of sulfuric acid, and $200,000 of nitrogenous fertilizers.

Authorizations to purchase chemical and chemical preparations were also issued to Pakistan in the amount of $4,150,000; to Vietnam, amounting to $500,000, and to Iran, amounting to $600,000.

Iran also received an authorization to purchase $600,000 of pharmaceutical and medicinal preparations and Thailand was authorized to purchase $200,000 of agricultural pesticides and $100,000 of phosphates and other fertilizer materials.

Burroughs Wellcome Elects

William F. Dowling has been elected a vice-president of Burroughs Wellcome & Co., Tuckahoe, N. Y. Mr. Dowling has been secretary and general counsel of the company since 1946, and a board member since 1949.

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CHEMICALS OUTLOOK

May, 1956

WYANDOTTE CHEMICALS

MICHIGAN WEEK TO BE CELEBRATED MAY 20-26

This news bulletin about Wyandotte Chemicals services, products, and their applications, is published to help keep you posted. Perhaps you will want to route these and subsequent facts to interested members of your organization. Additional information and trial quantities of Wyandotte products are available upon request . . . may we serve you?

Michigan Week is being celebrated May 20 through May 26. Wyandotte Chemicals joins the nation in a salute to Michigan's achievements.

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Michigan has one of the largest iron-ore producing regions in the world. The Great Lakes, which border Michigan, form the largest body of fresh water in the world. Michigan has the only large commercial deposit of native copper in the world. Located under Detroit is one of the most modern salt mines in the world. Kalamazoo is the celery center of the world. And there's even a bean elevator in Saginaw that's--you guessed it--the largest in the world.

Michigan boasts the largest gray-iron casting factory, the largest single Portland Cement plant, the largest billiard-table and bowling-alley factory, the largest pharmaceutical plant, and the largest commercial limestone quarries in the world.

Michigan has the world's largest shifting sand dune, the world's highest artificial ski jump, the world's longest and fastest man-made toboggan run, the world's longest international suspension bridge, the world's greatest supply of fresh water for industry.

And, of course, Michigan is the automobile center of the world.

To all this we'll add that Wyandotte Chemicals Corporation is the largest manufacturer of specialized cleaning products for business and industry--in the world. And, as a basic producer of raw material chemicals for more than 65 years, we serve some of the finest customers--in the world.

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Division of Victor Chemical Works
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Chromic Acid Recovery Possible in Mutual Process

A patented method for recovering contaminated or spent chromic acid solutions typical of chromium plating, anodizing and copper stripping operations has been developed by Mutual Chemical Division of Allied Chemical & Dye Corporation, New York.

The method is being made generally available for industrial use without the requirement of any formal license. U. S. Patent 2,733,204 was recently issued covering this method.

The process involves ion exchange treatment for removal of metallic contaminants of iron, copper aluminum and other metals by passing solutions through a cation exchange resin consisting of a sulfonated infusible polymerizate of a polyvinyl aryl compound.

Such treatment on a hydrogen cycle permits recovery of baths which become inoperable due to excessive metallic contamination or reduction in acidity.

In relatively large operations the method is considered a useful engineering tool not only for decreasing the cost of chromium chemical treatments, but as a means of reducing costly waste treatment necessitated by increasing emphasis on eliminating stream pollution.

Furthermore, it has been reported that the quality of plated and anodized work is improved by the use of these so-called decationized solutions. A number of companies are understood to be using this process and the necessary equipment can be obtained from several engineering concerns.

Dow Gives Demonstration Of Turf Renovation Method

A new concept of turf renovation was demonstrated last week at Michie Stadium, United States Military Academy, West Point, N. Y., by the agricultural chemical division of Dow Chemical Company, Midland, Mich., for a group of turf specialists and the press.

"Dowfume MC-2," injected under a gas-proof cover finds use as a soil fumigant in areas such as golf courses, playgrounds, and athletic fields where a tight, weed-free sod is desired because of its ability to control undesired grasses and soil borne pests.

Composed of 98 percent methyl bromide and 2 percent chloro-picrin used as a warning agent, "Dowfume MC-2" can be used in either cultivated or uncultivated areas without doing harm to necessary soil bacteria, it was pointed out.

Dow's agricultural chemical division has used "Dowfume MC-2" on athletic fields at Notre Dame University, the University of Illinois, and Mississippi State University.

Byco Appoints Manager, Moves to Long Island City

Byco, Ltd., Long Island City, N. Y., has appointed N. Nickolaus as its district sales manager. Prior to joining Byco, Mr. Nickolaus had a number of posts in fine chemicals production, atomic research, engineering and technical sales.

The company, which is a manufacturer and importer of chemicals and pharmaceuticals, only last week moved its offices and plant to new and larger quarters at 40-11 23rd street, Long Island City. The telephone number is STillwell 6-8441.

Medical Advertisers Elect Arthur Sackler President

Dr. Arthur M. Sackler, president of William Douglas McAdams, Inc., has been elected president of the Association of Medical Advertising Agencies.

Others elected were:—Vice-presidents, Robert Wilson, president of Robert E. Wilson, Inc., and Paul Klemtner, president of Paul Klemtner & Co., and treasurer, Charles Lewis, vice-president of L. W. Frohlich & Co. William Duryea, vice-president of McAdams, was appointed executive secretary.

Wyandotte Going On Board

Wyandotte Chemicals Corporation, Wyandotte, Mich., has filed with Securities and Exchange Commission a registration statement covering 100,000 shares of common stock, to be sold when the registration statement becomes effective, some time late in May. This will be the first public financing in the company's history.

Gampert Retires from Felton

Louis Gampert, vice-president and chairman of the board of Felton Chemical Company, Brooklyn, N. Y., has retired from active service. Mr. Gampert will continue with the company as consultant.

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Nitrate of Soda

For purity . . . for uniformity . . . for easy handling . . . it pays to standardize on Mathieson's Nitrate of Soda in prilled form. Widely used in metal processing, Mathieson Nitrate of Soda is also important in the manufacture of explosives, drugs and medicinals, paint and pigments, glass and clay products, textiles, and the treatment of pulp and paper. Mathieson Nitrate of Soda is available in 100-lb. multi-walled paper bags (palletized loading optional) and bulk cars (box or hopper) from Lake Charles, Louisiana.

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Phillips, Belgian Company Agree on Polyolefin Unit

Phillips Petroleum Company, Bartlesville, Okla., has licensed Societe Solvay et Cie, a Belgian firm with an operating office in Italy, to use the new Phillips-developed process for making rigid polyethylene.

The Agreement grants Solvay et Cie exclusive use in Italy of Phillips patents and technical knowledge for producing this new family of plastics.

Solvay et Cie, with headquarters in Brussels, is a manufacturer of various chemical products and plastics.

FDA Extends Filing Time For 3 Pesticide Chemicals

Food and Drug Administration has extended the effective date when three pesticide chemicals must meet the requirements of the Miller Pesticide law with respect to establishment of residue tolerances.

The order established June 15 as the effective date for complying with the law with respect to ethylene oxide in copra and octamethyl pyrophosphoramide in or on walnuts. July 22 was the date established for trichloroethane to be used as a grain fumigant.

Freight Car Expansion Reported Oversubscribed

The freight car expansion goal was closed out last week by the Office of Defense Mobilization after the original goal was found to be over-subscribed by about 59,000 cars.

The original goal of 436,000 new freight cars was established in April, 1952. In closing out the goal, ODM stated that the applications for tax certificates on file April 26 would still be processed and this will raise the total to 495,000 cars.

CCC Offers Commodities

Government stocks of nonfat dry milk solids, tung oil, peanuts, grain sorghums, gum rosin and gum turpentine will continue to be offered for sale during May by the Commodity Credit Corporation. No major changes in this list of products has been made by the agency from the list announced for April.

BDSA Unit Gets Director

The appointment of Harry V. Kiley as director of the Forest Products Division, Business and Defense Services Administration, Department of Commerce, has been announced.

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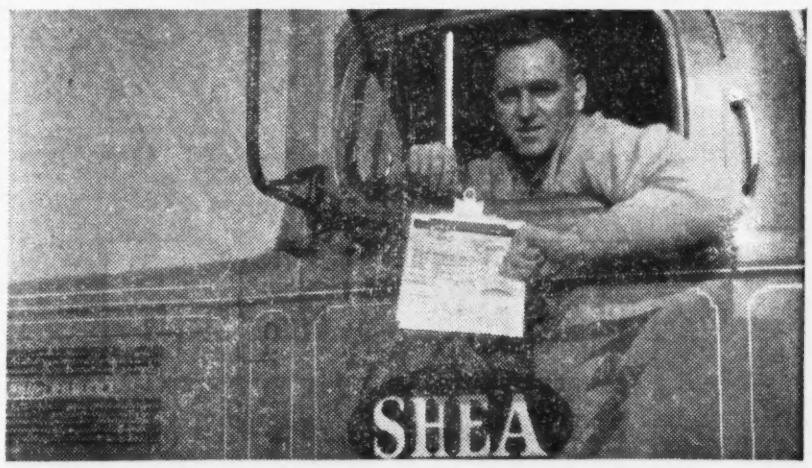

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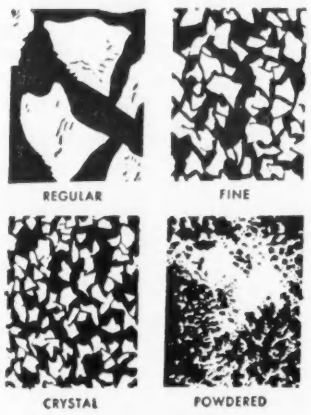
for repackaging, processing comes in four flake sizes

These four caustic soda flake sizes provide a convenient choice if you package alkali specialties, such as cleansers, or process with flake caustic.

The "regular," "fine," and "crystal" flakes, shown here in actual size, are nondusting. And with these flakes, you're sure of actually getting the size you order. Flake thickness, as well as size, is controlled in a careful flaking-screening operation, so flakes stand up and retain their size in transit.

You can get the regular flake size in 100-lb. and 400-lb. steel drums; other sizes in 450-lb. steel drums. The larger drums come in two styles: 14-inch opening (extra large for easy pouring), or full open head (at slight additional cost).



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Synthetic Rubber Rise Reported Sharp for '54

Synthetic rubber shipments in 1954 rose sharply and were 54 percent above those of 1947, when the last census of manufacturers was taken, according to a preliminary synthetic rubber industry report by the Bureau of Census.

The synthetic rubber industry covered by the report includes manufacturing establishments engaged primarily in manufacture of synthetic rubber by polymerization or copolymerization.

Important products of this industry include butadiene-styrene type (GR-S and Buna-S), butadiene-acrylonitrile type (GR-N), butyl, neoprene, "Thiokol," and all other vulcanizable elastomers.

Value of shipments of products shipped by the synthetic rubber industry in 1954 was $361.1 million, as against $235.2 million in 1947.

Average employment in the industry increased by 10 percent over 1947, to a total of 8,500 employees in 1954. Establishments covered by the census in 1954 numbered twenty-one, and in 1947, twenty.

Value added by manufacture in the industry amounted to $153 million in 1954, an increase of 57 percent over 1947. The figure is derived by subtracting the cost of materials, etc., from the value of shipments.

Agricultural Chemical Sales Are Consolidated by Shea

Consolidation of all agricultural sales has been announced by Shea Chemical Corporation, Jeffersonville, Ind. The new division will be headed by H. E. Frederick, vice-president. Errol F. Cook becomes nutritionist, and William J. Barrett, technical sales engineer.

Chief duties of the group will be to direct Shea's sales to the feed and fertilizer industries. Products sold to animal and poultry feed manufacturers include dicalcium phosphate and phosphate feed solution.

J. B. Williams Discloses Retirement of Dr. Guest

The J. B. Williams Company, Glastonbury, Conn., has announced the retirement of Dr. Herbert H. Guest, director of research. Prior to his retirement, Dr. Guest completed forty-four years of service with the company.

Among other accomplishments he is credited with overcoming spoilage created by foil wrappers, with devising a workable methodh of mechanical drying of soap and with preventing the corrosive action of shaving cream on collapsible tubes.

Spray Lactose Offered

USP lactose is now being produced by a new spray process manufacturing method, creating a new grade of milk sugar which can be sold at lower cost, according to Western Condensing Company, Appleton, Wis., a division of Foremost Dairies, Inc.

Pennsalt Announces Promotions

Edwin E. Tuttle has been named manager of the profit analysis department of the Pennsylvania Salt Manufacturing Company, Philadelphia. Allan H. Lee has become a member of the technical sales staff of Pennsalt Chemicals of Canada at Hamilton, Ont.

Tide Water Changes Name

Stockholders of Tide Water Associated Oil Company have approved a proposal to shorten the name of the company to Tidewater Oil Company. The company will continue to distribute petroleum and other products under its "Flying A" and "Veedol" brand names.

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Southern Sales Office...Candler Building, Atlanta, Ga.

Agricultural Chemicals

Ammonium sulfate will be offered by two major cokeoven producers at $32 per ton effective May 7. The reduction amounts to $10 per ton under the current list price. Record high by-production at steel companys plants combined with the persistently sluggish planting season to account for the growth of awkward inventories. Business in agricultural chemicals in general was slow again last week. Bonemeal, still quoted at $60 per ton, was very weak. Castor pomace, which was moving slowly at the $40 price still listed in some quarters, figured in sales at $35.

The better tone in animal feeds persisted, however, and Chicago prices of tankage and dried blood rose 25 cents per unit-ton. This influence was manifest also in fishmeal and scrap, which rose again by $1 per ton.

Southern fertilizer producers were reported pessimistic. Mixers were said to be cutting prices to farmers to the point where there was no profit to anyone in the business.

Most producers considered that the over-all picture for this season was not as bad as some local and temporary conditions made it appear. Farmers were still buying only according to immediate need, for example, but producers pointed out that this was nothing new.

As to pricing, they cited calculations of the National Plant Food Institute indicating that, while the farmer now paid 129 percent more than he did in 1939 for all purchases, the cost of his fertilizers had risen only 10 percent in the like period.

Price Trends

Advanced

Blood, dried, Chicago, 25c. per unit-ton.
Fishmeal, $1 per ton.
Fishscrap, $1 per ton.
Tankage, Chicago, 25c. per unit-ton.

Reduced

Castor pomace, $5 per ton.

Comparative Price Indexes

(100 = 1949 average)

Last week	Prev. week	Last month	May 6, 1955
110.04	110.23	109.88	110.80

For Current Prices see Page 9

Animal and Plant Foods

Ammonium Sulfate—Two major producers of cokeoven ammonium sulfate announced a price reduction effective May 7 at most of the companies' plants. The new bulk price, f.o.b. producing plant, will be $32 per ton. Further details may be seen in the news section.

Animal Proteins—Dried blood and tankage rose another 25c. per unit-ton at Chicago, again reflecting the better tone of the feed business. Trade sources stressed the point that none of this price strength could be attributed to demand for fertilizer, which figured in poor trade again last week.

New York blood and tankage prices were unchanged.

Strength in animal feeds carried prices of fishmeal and scrap higher by $1 per ton. Current quotations were $139 for meal, $135 for scrap. Supply was fair. Demand was good, the market firm.

Some trap fish, including herring for canneries, were coming in off the Chesapeake. Otherwise there was no fish production. The menhaden fleet would be putting out the first week in June.

Bonemeal was quoted at $60 per ton, but this price might be shaded. The market was on the weak side, and the price was shaky.

Castor Pomace—Some producers, tired of the inactivity in this market, registered some sales at $35 per ton. The price was still listed in most cases at $40 per ton. Pomace had not been moving well at the higher figure.

Nitrogen—The still generally depressed condition of this market in the US was in sharp contrast last week to the market in Europe, where nitrogen was in a sold up position generally and the price structure was described as firm.

Phosphorus—Bad weather restrained movement in the east and middle west to something far below expectations for April. Mixers had stocked up in anticipation of normal business, but farmers weren't buying.

The single exception was trade in the south. After an exceptionally wet early spring, southern weather permitted planting, and there was a fair degree of activity in phosphorus. It had started late and was short of expectations but was much stronger than trade in other sections of the country.

Superphosphates — Domestic business continued slow in most parts of the country, but there was a little more activity in the superphosphates than there was in most other fertilizer materials.

There was some hope of increased sales in May for side dressing, since there had been reports that farmers, long delayed by dampness of the soil, had proceeded with planting without using fertilizer. Their intention in most cases would have been to apply side dressing later. This practice was said to be particularly prevalent in the middle west.

Export demand continued substantial, but there was difficulty getting bottoms. Shipments against the Korean purchases of some weeks ago were got under way.

Los Angeles Market

Demand was generally steady for inorganic materials. Brisk movement of calcium nitrate was reported, with three ships scheduled to arrive this month.

Freight adjustments were cited as reason for slight price revision for 11-50 grade ammonium phosphate, now quoted at $96.50 per ton, domestic, in bulk, f.o.b. Los Angeles, $101.50 per ton in bags, and for triple superphosphate, revised to $69.80 per ton in bulk, 47 percent a.p.a., f.o.b. Los Angeles, $73.80 per ton in bags.

Farm Chemicals Foreign Trade: February

Following are data compiled by the Census Bureau indicating volume of exports and imports of agricultural chemicals. Classified as ammonium nitrate mixtures are those containing 20 percent or more nitrogen. Figures for ammonium phosphates and fishmeal and scrap account only for that material intended for use as fertilizer. Superphosphate is classified as normal when a.p.a. is less than 25 percent, concentrated when a.p.a. is 25 percent or more. The term tons refers to short tons.

		February 1956	*Calendar Year To Date*
EXPORTS			
Ammonium nitrate	lbs.	22,507,262	29,490,865
Ammonium sulfate	lbs.	114,254,117	243,212,595
Insecticides, fungicides and agricultural sulfur	lbs.	7,440,855	12,835,823
Phosphate rock	tons	257,322	417,487
Potassium chloride	tons	27,300	38,186
Superphosphate, normal	tons	19,679	47,396
Concentrated	tons	11,647	19,949
Weed killers	lbs.	1,455,957	2,835,458
IMPORTS			
Ammonium nitrate, including mixtures	tons	81,813	150,946
Ammonium phosphates	tons	17,371	42,572
Ammonium sulfate	tons	19,270	41,797
Blood, dried	tons	116	311
Calcium cyanide or lime nitrogen	tons	6,497	16,117
Fishmeal and scrap	tons	156	931
Nitrate, calcium	tons	11,475	21,410
Sodium, crude and refined	tons	25,109	76,233
Phosphates, crude, including apatite and phosphate rock	tons	7,520	17,596
Potassium chloride, crude	tons	21,624	56,947
Nitrate, crude	tons	190	287
Sulfate, crude	tons	5,636	8,594
Urea	tons.	10,736	89,665

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PARA TOLUENE SULFONIC ACID, ANHYDROUS
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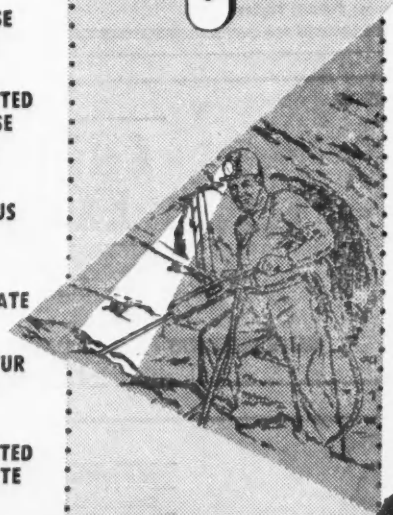

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Textile, Leather Chemicals

Steady consuming demand for textile and leather chemicals was the highlight of this market last week. Most of the orders placed were for prompt needs, while consumers showed little interest in forward requirements. This kept prices on a firm basis for the entire list. Potato starch remained strong and was advanced fractionally for shipment from Idaho. The situation in Maine remained firm as a result of sold up production which was moving against a backlog of orders. Lack of offers from Maine resulted in improved demand for stocks on the spot, which were maintained at former levels. Good inquiry was noted for tapioca flour for shipment from Brazil. Trading was practically at a standstill, due to scarcity of offers of new crop flour. Demand was quite active for supplies available on spot. Sago flour continued unchanged and steady. Supplies were adequate here and in good request. Corn starch and dextrin moved in good volume for prompt needs. Bichromates and other chemicals continued in active request against contracts, while new business was reported moderate for prompt delivery.

There was no improvement in the light demand for tanning materials. Tanners continued to limit purchases to nearby shipment. Primary markets remained steady at unchanged quotations.

Commodity Credit Corp. last week sold 1,040,000 pounds of wool under the competitive bid program. Bids were received for about 3,168,000 pounds. Approximately 1,967,000 pounds were sold during April and about 28,880,000 pounds under the bid program since its inception November 1, 1955. In addition, about 877,685 pounds have been sold directly since November 1 at minimum selling prices, equivalent to 103 percent of the 1954 loan rates plus commission.

The French textile industry, which in 1954 had shown signs of complete recovery from its 1952 recession, suffered a new decline in 1955. The recession was marked particularly in the cotton-textile industry. The French industry has been especially hard hit by the decline of its important market in the former Indo-Chinese States. The uncertain outlook in the French industry was reflected in 1955 in a 40-percent reduction of French raw-cotton imports from the United States. In the past 2 years, 176 French textile plants have shut down, leaving some 30,000 workers unemployed.

Price Trends

Advanced
Potato starch, Idaho, 6/10c. per lb.

Reduced
None

Comparative Price Indexes
(100—1949 average)

Last week	Prev. week	Last month	May 6, 1955
107.38	107.38	107.36	103.95

For Current Prices see Page 9

Chemicals

Bichromates — Steady consuming demand continued to absorb bulk of production. Market was firm and all grades were maintained at former levels.

Sodium Acetate—Demand was quite active for nearby requirements. Market was quotably unchanged and steady.

Sodium Hydrosulfite — Consumers absorbed good sized lots for prompt needs. Interest in later requirements was limited. Prices ruled steady and unchanged.

Sizing Materials

Corn Dextrin — Buying interest continued at a good rate, chiefly for prompt needs. All grades were unchanged and steady. Gum was quoted at $9.18 per 100 pounds, paper bags, carlots, New York basis; light canary, $8.92; dark canary, $9.02 and white, $8.76, same basis. Less carlots commanded a premium of 15c. per 100 pounds.

Corn Starch — Consumers continued to take good sized lots for prompt needs. Market was steady and unchanged. Pearl was quoted at $7.17 per 100 pounds, carlots, paperbags, New York delivery and powder, $7.29, same basis. Smaller quantities were 15c. per 100 pounds higher. Visible corn supply increased 1,058,000 bushels to 58,362,000 bushels for the week ended April 27, against 32,012,000 bushels for the same time last year, it was reported by the Chicago Board of Trade.

Egg Albumin—Consumers absorbed sizable quantities, principally for nearby delivery. Market remained steady. Flake was generally quoted at $2.04 to $2.06 per pound and powder, $2.08 to $2.10 per pound, according to quantity. Technical remained steady at 90c. to 92c. per pound, same basis.

Liquid egg production during March totaled 62,791,000 pounds, compared with 67,855,000 pounds in March last year and the 1950-54 average of 83,190,000 pounds, according to the Crop Reporting Board. The quantities used for immediate consumption and frozen were smaller than a year earlier, but the quantity used for drying increased by 21 percent.

Egg solids production amounted to 2,612,000 pounds, against 2,357,000 pounds in March last year and the average of 4,010,000 pounds. March production consisted of 398,000 pounds of dried whole egg, 1,181,000 pounds of dried albumen and 1,033,000 pounds of dried yolk. Production during March last year consisted of 548,000 pounds of dried whole egg, 975,000 pounds of dried albumen and 834,000 pounds of dried yolk.

Frozen egg production in March totaled 49,212,000 pounds, compared with 55,419,000 pounds in March last year and the 1950-54 average of 66,334,000 pounds. Frozen egg stocks increased 17,000,000 pounds, compared with an increase of 21,000,000 pounds in March last year and the average increase of 30,000,000 pounds.

Potato Starch—Offers from Maine continued scarce due to sold up production. Market was strong and more or less nominal at 6½c. to 6¾c. per pound, carlots, f.o.b. mills. Stocks on spot also were firm, ranging from 8½c. to 9c. per pound, ex-warehouse, according to quantity. Idaho market was stronger and carlots advanced to 6.6c. per pound, f.o.b. mills for western delivery and 6c. to eastern points.

Tapioca Flour—Offers from Brazil were reported practically nil. Old crop has been sold up and sellers were reluctant to quote new crop at present. Stocks of Brazilian on spot were in good demand and firm at 8¼c. to 9c. per pound, ex-warehouse, depending upon quantity.

Tanning Materials

Cutch—Consuming inquiry was active for prompt shipment. Market was unchanged and steady at 8½c. per pound, exdock, plus duty prompt shipment.

Mangrove Bark — Consuming interest was confined to nearby shipment. Primary market was unchanged and steady. African bark was quoted at $68 per ton, exdock; Colombian, $58 and Ecuadorian, $55, same basis for prompt shipment.

Myrobalans—Primary market remained steady and quotably unchanged, despite limited buying interest. No. 1, assorted was quoted at $64 to $65 per ton, ex-dock; crushed, $79 to $80 and Bombay, $63 to $64, same basis.

Quebracho Extract—Trading continued light and confined to nearby shipment. Quotations were firm. Solid ordinary, guaranteed 63 percent tannin quoted at 11 21/32c. per pound, exdock, plus duty and clarified 64 percent at 12 23/64c. same basis.

Valonia—Trading was reported light and spotty. Shipments were unchanged and well held. Cups were quoted at $58 per ton, carlots, exdock, prompt shipment; beards were nominal at $75 to $76 per ton, same basis. Extract was named at 8½c. per pound, carlots, exdock, plus duty.

Wattle—Tanners continued to operate in a hand to mouth manner. Bulk of trading has been restricted to nearby shipment. Quotations were held at former levels. Fair average bark was quoted at $98 per ton, carlots, exdock and merchantable, $94 per ton, same basis. East African extract was held at 9⅞c. per pound and South African, 10c., carlots, exdock, plus duty.

Aliphatic Organics

Melamine was reduced 3 cents per pound, effective May 1. The reduction was the first decline in the price of this monomer since prior to the Korean police action. It was of interest to note that an announcement was recently made that the melamine production capacity at one plant was scheduled to be integrated with a similar 20 percent increase already completed at another plant. Another price change last week was reported in adipic acid, which was reduced 3 cents per pound, effective May 1. The price cut was reportedly part of a plan to encourage an expansion in the usage of the acid.

The overall state of the aliphatics organics market was reported to be healthy. Prospects for a continuing high rate of industrial activity have been forecast, although it was not expected to come fully up to last years' level. Despite the passing of another antifreeze season, demand for ethylene glycol continues at excellent levels. Producers of antifreeze are currently anticipating the needs of the coming winter and maintaining a high rate of output.

It is an opinion in the industry that ethylene glycol consumption will continue to rise in view of the ever increasing number of motor vehicles on the road. The only possible development which might ultimately cut into the usage of the glycol for this purpose might be the commercial development of vehicles with air cooled power plants.

Lacquer solvents continue to move at a generally satisfactory rate although the large number of solvents in this field has grown steadily with the result that consumption of some has suffered while overall usage has steadily increased. The supply situation was generally adequate on all chemicals in the ester group, amyl acetate and alcohol as well as refined fusel oil being in good supply, following a prolonged period of tightness last year.

The chlorinated solvents were reported in good demand, on the whole. Carbon tetrachloride consumption in fire extinguishers has been curtailed by the growing popularity of extinguishers charged with dry chemicals, it was noted.

Price Trends

Advanced
None

Reduced
Acid, adipic, 3c. per lb.
Melamine, 3c. per lb.

Comparative Price Indexes
(100—1949 average)

Last week	Prev. week	Last month	May 6, 1955
130.93	131.01	131.02	130.45

For Current Prices see Page 9

Acetic Anhydride—Demand for acetic anhydride was reported holding at good levels. Prices were unchanged and supplies adequate to meet current industry requirements.

Production of acetic anhydride aggregated 73,385,433 pounds in February compared to 77,404,318 pounds put out in January, 1956.

Acetone—Exports of acetone totaled 498,000 pounds in December, 1955. Total exports of this solvent amounted to 3,987,000 pounds in 1955 compared to 8,662,000 pounds sent abroad in the preceding year.

Adipic Acid—A reduction in the price of adipic acid from 35c. to 32c. a pound delivered in carload and truckload quantities, effective May 1, was announced last week.

The price cut was said to be part of a long-range plan to provide economic encouragement to the expansion of uses for this dibasic caid. Adipic acid was originally developed as an intermediate in the manufacture of nylon, still by far the largest use. It is estimated that the consumption of adipic acid in products other than nylon increased more than 50 percent in 1955 compared to the previous year.

In recent years, however, the manufacture of adipate plasticizers and polyesters for the production of polyurethane foams have consumed growing quantities of adipic acid. In addition, adipic acid is used in reinforced plastics, wire coating enamels, and solid propulsion-type fuels.

Butyl Alcohol — Imports of primary butyl alcohol were reported to have totaled 223,000 pounds last year compared to 257,000 pounds landed in the previous year.

Exports of butyl alcohol were reported to have amounted to 3,366,000 pounds in December last year. Overall exports for the year 1955 were 37,303,000 pounds compared to 36,310,000 pounds shipped out in 1954.

Carbon Disulfide—Exports of this compound were 495,000 pounds in December last year. The total of exports for the year amounted to 2,726,000 pounds as compared to 2,243,000 pounds in 1954.

Ethanolamines—Demand for the ethanolamines was reported to be running at a steady rate. Supplies were adequate to meet consumers' needs and expected to continue. Prices were firm.

Production of the ethanolamines (mono-, di- and tri) totaled 7,378,795 pounds in February compared to 6,889,054 pounds in January, 1956.

Ethyl Ether—The market was routine, Inquiry was steady and supplies ample while price was unchanged since last reported.

The production of technical and USP grades of ethyl ether combined, according to the Tariff Commission, aggregated 5,421,049 pounds in February compared to 6,997,957 pounds in January.

Formaldehyde—Consumption of formaldehyde continues to move along at a brisk level. The heavy rate of building construction has had an indirect effect upon formaldehyde consumption insofar as it is an important component of various adhesives used in plywood manufacture. Plastics manufacture continues to spiral with a resultant boost in formaldehyde used in plastics production, it was further noted.

The supply situation was healthy and if anything, capacity for formaldehyde production exceeds current requirements by a substantial margin, according to trade sources.

Formaldehyde price schedules were reportedly steady and not expected to change in the immediate future. Production of formaldehyde (37 percent by weight) totaled 110,519,329 pounds in February compared to 111,690,765 pounds during January, 1956, the Tariff Commission reported.

Formic Acid—The market was steady with supplies adequate for consumer requirements. Prices were unchanged.

Production of formic acid amounted to 1,281,181 pounds in February according to the United States Tariff Commission. This compared with 1,374,827 pounds in January this year.

Glycerine—The spot market last week was unchanged. Demand for refined glycerine continued to move at good levels while supplies were adequate for current consumer requirements and expected to continue in the immediate future. Crude glycerine prices remained weak.

Despite continued competition from other polyols such as pentaerythritol and sorbitol, glycerine continue to command a substantial piece of the protective coatings market.

Two factors seems to have averted a swing to substitute materials; for one, the anticipated increase of synthetic glycerine in the second half of 1955 was expected to contribute to supply and demand stabilization; two, the tempering effect of such added domestic capacity on the holders of foreign crude may serve to moderate the characteristic wild fluctuations of imported glycerine supplies.

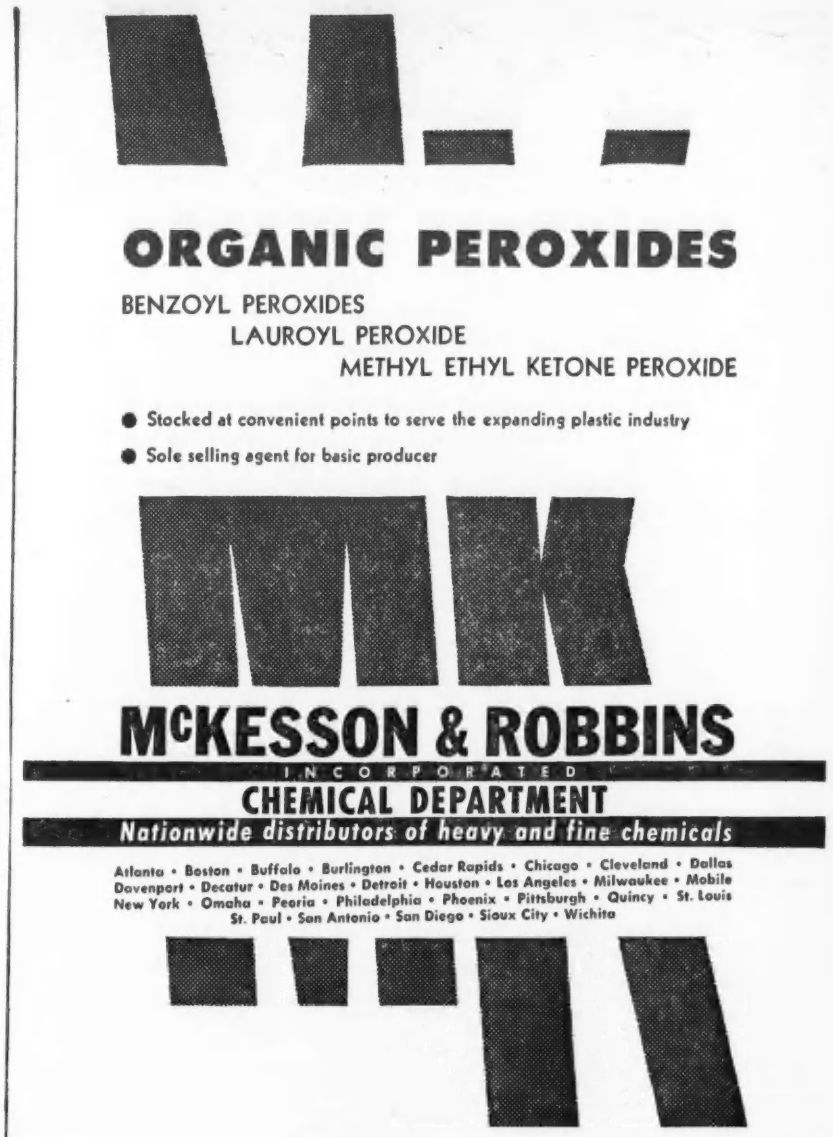
Imports of crude glycerine in 1955 amounted to some 25,000,000 pounds, but because of substantial exports of refined glycerine, the net import supply was about 15,000,000 pounds.

This import/export balance was in marked contrast with the extremes witnessed in the two preceding years. In 1953, net imports soared to a high of 31,000,000 pounds. But in 1954, exports topped imports by 2-3,000,000 pounds.

Hexamethylenetetramine — Inquiry for this compound was reported unchanged. The supply situation was one of adequacy while prices were steady.

Production of hexamethylenetetramine aggregated 2,668,883 pounds in February compared to 2,183,994 pounds in January, the Tariff Commission reported.

Melamine—Melamine was reduced 3c. per pound last week, effective May 1. The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Aliphatic Organics

declined was the first price change in this chemical since prior to the Korean War. The current schedule was as follows:—drum carloads, 30c.; less than carloads, 31c. per pound.

Methanol—Demand for methanol continues at a brisk rate. Aside from its use as an antifreeze, methanol has been moving into a wide number of enduses, with much of current production captively consumed in the manufacture of formaldehyde. The governments defense program with a greatly accelerated pace in missile development and aircraft also has been taking substantial quantities of methanol output. Supplies, on the whole, were adequate, although not excessive, while prices were very firm.

Production of synthetic methanol amounted to 113,342,175 pounds in February compared to 126,289,686 pounds in January, according to the Tariff Commission. Production of natural methanol totaled 1,367,840 pounds in January.

Trichloroethylene—The market was unchanged with inquiry active and supplies adequate. Prices were firm.

Imports of trichloroethylene aggregated 2,110,000 pounds in December last year. The total of imports of this chlorinated olefin in 1955 amounted to 20,190,000 pounds compared to 23,786,000 pounds brought in during the whole of 1954.

Abbott Labs Export Unit Elects 3 Vice-Presidents

Three promotions to vice-president have been announced by Abbott Laboratories export subsidiary companies. Thomas S. Bird, formerly advertising manager of the North Chicago firm's export subsidiaries, has been named vice-president in charge of advertising.

George C. Dufour has been promoted from production manager to vice-president in charge of production. B. A. Olerich, formerly treasurer of the Abbott export companies, has been named vice-president and treasurer.

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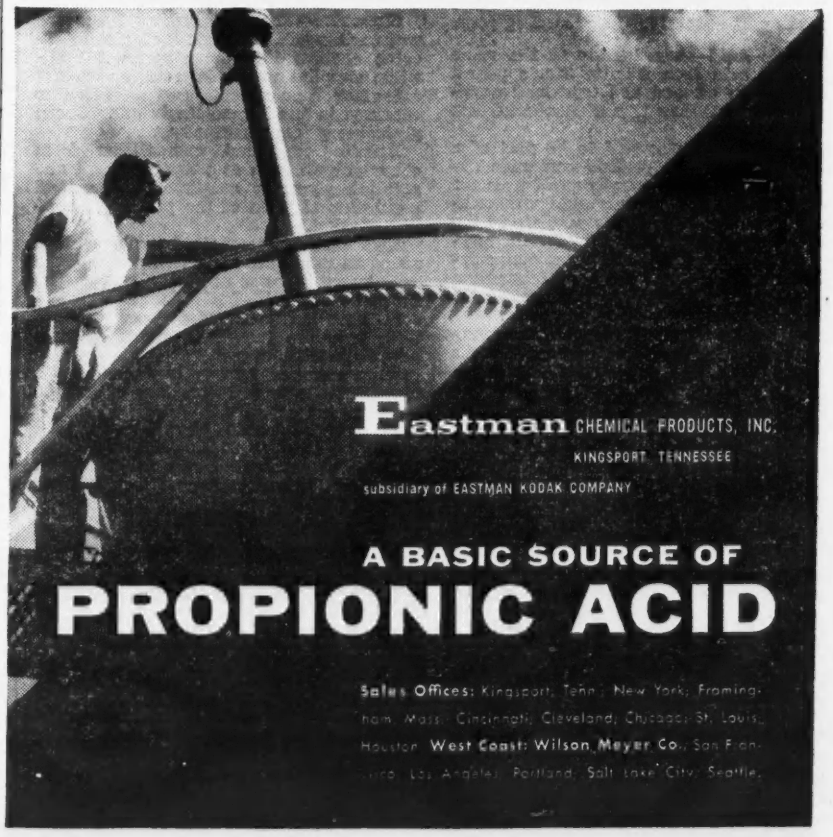
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Selenium Filing Dates Fixed by Commerce Dep't

Filing dates for submission of applications to export certain selenium commodities in the third quarter are June 1 through June 15, the Department of Commerce has announced.

Applications to export certain aluminum and copper materials must be submitted before June 16 to be considered for second quarter licensing, the department also announced.

Filing date for selenium commodities applies to selenium powder, metal, except selenium-bearing scrap materials, salts and compounds including selenium dioxide salts of organic compounds, selenium-containing pigments, selenium-containing rubber compounding agents not of coaltar origin, and ferroselenium.

The cut-off date for applications to export aluminum and copper materials includes the following commodities:—New and old aluminum scrap, aluminum remelt ingot, new and old copper scrap, new and old copper-base alloy scrap containing 40 percent or more copper, except copper-nickel alloy scrap, and copper-base alloy ingot.

Grace Polymer Division Sets Up New Jersey Lab

The headquarters and applications laboratories of the newly formed Polymer Chemicals Division of W. R. Grace & Co., New York, will be located in Clifton, N. J.

A recently acquired one-story building in Clifton will house the division's laboratories, its management staff, its eastern regional sales headquarters and its New York area sales organization.

Nat'l Aluminate

—*Continued from page 7*

Nalco-Chemie by entering into a patent assignment agreement and a licensing agreement to furnish secret formulas, processes and manufacturing techniques.

The guaranties, issued by the International Cooperation Administration, insure the convertibility of up to $1,298,000 in patent payments and technical fees by Deutsche Nalco and insure National Aluminate against financial loss, in case of expropriation, of the $50,000 cash investment.

The German subsidiary has been organized primarily for the production of chemicals developed by National Aluminate in the United States. These chemicals have been imported into Germany for several years from National Aluminate's Chicago plant, and recently from the firm's Italian subsidiary, for use in steam locomotives.

With the recovery and growth of the German economy, the requirements of the railway system have greatly increased the railway administration has sought to have the chemicals manufactured in Germany.

Creation of this local source of compounds to treat boiler water may be expected to result in savings in the cost of operating the German railroads and other important industries using steam generating equipment, and in savings in foreign exchange for the Federal Republic of Germany.

The chemicals can be used while the locomotives or other steam boilers are in operation, thus reducing the time during which such equipment must be withdrawn from service for maintenance work. Some of the production of Deutsche Nalco may be exported, resulting in foreign exchange earnings.

Esso Will Market

—*Continued from page 7*

grade gasoline marketing system in six cities about June 20 and expects to extend the new system by mid-August to approximately 75 percent of its customers in the eighteen-state area in which Esso products are sold.

Among other qualities, the new gasoline differs from conventional gasoline because its altered molecular structure increases its energy content per gallon.

The retail price of the new gasoline at seven company-operated stations will be set at three cents per gallon above the current price of the company's present premium gasoline at these stations.

Naugatuck Will

—*Continued from page 7*

for the development of high styrene resins, gum plastics, and related polymers. This section will be equipped with bottle polymerizers and complete facilities for handling butadiene and other gaseous raw materials.

Another section will be devoted to a plastics and rubber evaluation laboratory. An activity of this section will be the development of application methods for "Vibrin," Naugatuck's polyester resin, and "Kralastic," a new gum plastic.

The new laboratories will be adjacent to the Naugatuck pilot plant. Construction is scheduled for completion by December of this year.

Olin to Double

—*Continued from page 5*

Huntsville, Ala., plant of National Distillers Products Corporation; caustic soda produced at the Anniston, Ala., plant of Monsanto Chemical Company, and chlorine produced at the Arvida, Quebec, plant of Aluminum, Ltd.

"Trends in national production of chlorine and caustic soda have been steadily upward since 1939, reflecting the widely varied uses of these basic chemicals in both war and peace," Mr. Logan said.

"From World War II highs of 1,300,000 tons of chlorine and 1,900,000 tons of caustic, annual production of the two chemicals increased to 3,300,000 and 3,900,000 tons respectively in 1955.

"Present conservative estimates are that output will climb to 4,800,000 tons of chlorine and 5,000,000 tons of caustic soda by 1965, almost triple the World War II rate," he said.

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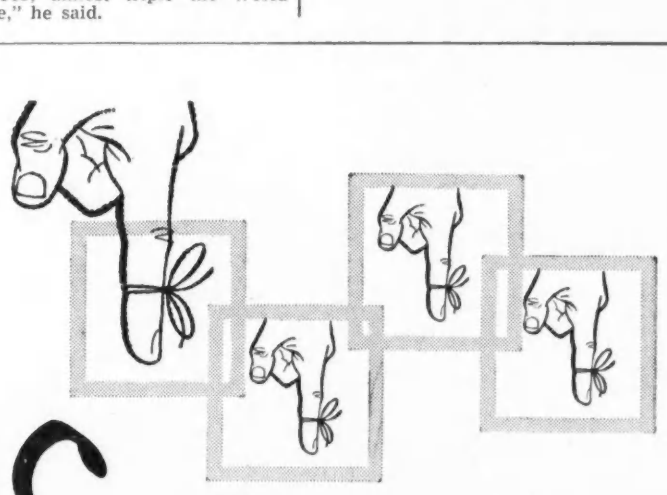

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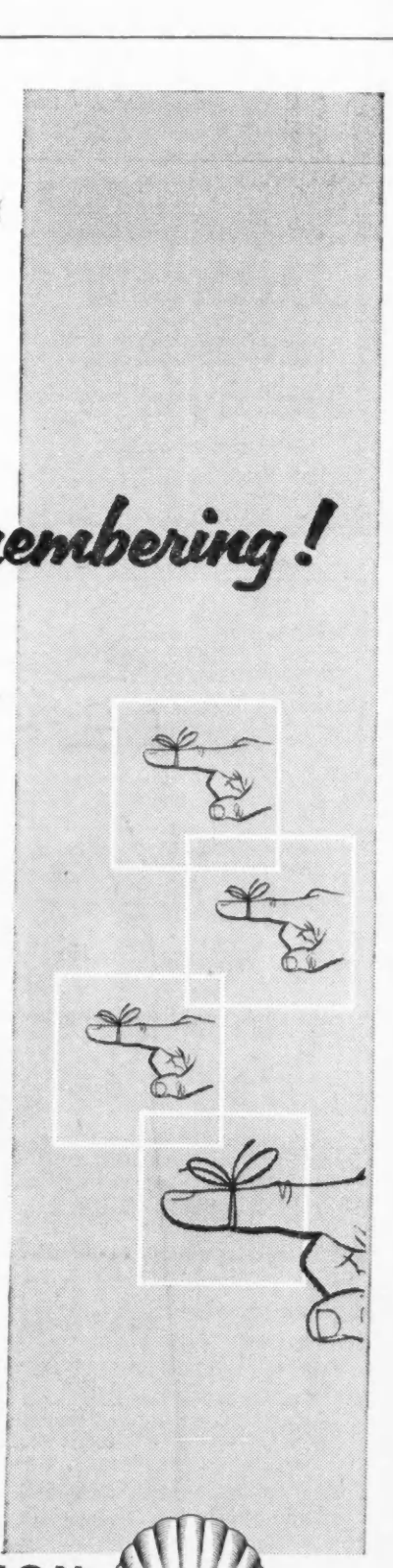

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Synthetic Dye Industry Marking

—Continued from page 5

process, established the first factory in the world for the manufacture of dyes.

Compared to some of the present day processes for vat and other type dyes, Perkin's method of manufacturing mauve was quite simple, consisting of only four steps; but the yield of actual dye was only five pounds per ton of coal and in 1860 the price of aniline violet in the United States was around $300 per pound.

The publication of Perkin's discovery activated interest in the study of the chemical composition of coaltar products by chemists all over the world. During the following fifty years, many important discoveries followed one another in rapid succession. It was found that of the ancient dyes, indigo and turkey red could be produced synthetically and more economically than the natural products.

Despite intensive activity on the part of chemists the time element between the development of new dyes in the laboratory to practical commercial production usually was a matter of years. By 1890, synthetic dyes had attained considerable stature and natural dyes were well on their way to obscurity.

European chemical manufacturers had established a virtual monopoly of the dye industry and prior to 1914 only 10 percent of the dyes consumed in the United States were made here. In that year the domestic production was less than 7 million pounds. It did not represent complete preparation of the dyes, but merely combining certain intermediates with other raw materials to form the finished product.

When foreign sources of supply were cut off, a number of chemical manufacturers started the manufacture of dyes. By 1917, eighty-one concerns were engaged in dye production but the range was limited to those for which the need was greatest. The initial hazards were many —lack of experience, financial barriers and other factors soon eliminated many of the pioneers and by 1937 the number of domestic producers had dropped to forty-three, who produced over 122 million pounds at a sales value averaged at 58 cents per pound.

Today, within a span of about forty years, America is self-sufficient and has a dye industry that is unsurpassed.

Dye-consuming industries have at their disposal an annual production of around 150 million pounds of coaltar colors consisting of more than 1,000 different dyes —and which embody degrees of fastness capable of meeting almost every normal requirement. These range from the durable vat dyes that possess outstanding resistance to most color-destroying influences to dyes suitable for application to any of the new synthetic fibers.

Sulfur Facility

—Continued from page 3

Company natural gas pipe line now under construction.

Pacific Petroleums, main gas supplier of Westcoast, is now constructing and 18 million dollar gas processing plant which will remove the hydrogen sulfide and liquid hydrocarbons from the gas.

Jefferson Lake, together with Pacific, will construct a plant to process the hydrogen sulfide into elemental sulfur. These plants are located in the Peace River area of northwestern Canada near the town of Fort St. John, B.C.

A Canadian subsidiary of Jefferson Lake, one of the world's oldest Frasch process producers, will operate the $1,800,000 sulfur plant and market the product.

Initial output will be at the rate of 300 long tons of sulfur a day, or 108,000 long tons annually. It is estimated that within five years production could reach between 500 and 600 tons daily or between 180,000 and 215,000 tons annually.

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Petroleum Derivatives

Seasonal figures continued to give the petroleum derivative market, particularly in the solvents and diluents fields, new firmness, dealers said last week. Contributing factors were good insecticide, agricultural chemical and paint sales, it was noted. Waxes, as they have for months, remained the strong leader in the derivatives market. Partial aromatics, benzol, xylol, lacquer diluents and mineral spirts also showed extremely healthy markets. Benzol sales are attributed in part, dealers noted, to high styrene sales. Synthetic phenol also is reportedly a major factor in the commodities market position.

Current reports of the industry for the week ended April 20 indicate a decrease in crude-oil production and a decrease in crude runs. According to the A.P.I., the daily average output of crude (including lease condensate) was 7,130,000 barrels, a decrease of 26,000 barrels from the preceding week. Daily average crude runs to stills of 7,436,000 barrels were 115,000 barrels below the preceding week, and 337,000 barrels above the week ended April 22, 1955. Runs of foreign crude amounted to 754,000 barrels daily compared with 859,000 barrels in the preceding week. For the four-week period ending April 20 crude oil production averaged 7,152,000 barrels daily and crude runs to stills averaged 7,550,000 barrels daily with runs of foreign crude averaging 833,000 barrels daily.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100—1949 average)

Last week	Prev. week	Last month	May 6, 1955
104.53	104.53	104.53	104.42

For Current Prices see Page 9

Solvents and Diluents

Benzol—High level styrene and synthetic phenol sales continued this commodity in a firm market position last week, dealers noted. This, coupled with the strong seasonal markets in agricultural chemicals and insecticides marks a high point for benzol. The questionable continued strength in styrene (dependent as it is upon the slipping automotive industry) may alter the course some dealers reported, though producers claim the automobile industry's hold on the benzol market is so tenuous as to be imperceptible in directional force.

Cleaners Naphtha—Sales remained in a relatively good position last week dealers reported, though the picture continues to conjure up visions of last year's situation. The growing factor of synthetic fibres in the summer clothing market remains the major depressant, dealers said, in spite of the development on several levels of new outlets for cleaners naphtha.

Partial Aromatics—Booming paint industry sales held this commodity pressed tight into a firm market last week, dealers said. Reflections of last year's record-making sales picture were noted by both producers and dealers. Construction and non-industrial sales are prime movers in the market, it was noted. The one lagging factor remains the automotive industry which, producers noted, should eventually, toward the end of the seasonal period, make itself felt. However, dealers reported that sales continuing on present levels should bring the quarterly picture up and beyond last year's records.

Toluol—Dealers reported last week that in spite of some shows of strength in certain areas (due primarily to seasonal demands) this market continued to show its usual softness. Because of controlable production, petroleum derived material has not been as seriously effected. However, the coal tar picture, according to producers, is grim indeed. The situation for toluol has been in this state for a number of years, since the loss of sundry government contracts. With the steadily developing stockpiles of material, dealers hold out little hope for a shift in the situation.

Xylol—Dealers reported growing firmness for this commodity last week as seasonal sales coupled with the already stiffening regular market. Agricultural chemical and insecticide sales have played major rolls in the development of the seasonal picture. A strengthening factor in the regular market has been the growth of xylol as a raw material in the manufacture of chemical materials.

Crude Oil Stocks

Stocks of domestic and foreign crude petroleum at the close of the week ended April 21 totaled 270,708,000 barrels according to data reported to the Bureau of Mines. Compared with the total of 267,085,000 barrels for the preceding week this represents an increase of 3,623,000 barrels comprising an increase of 3,001,000 barrels in stocks of domestic crude and an increase of 622,000 barrels in stocks of foreign crude.

Lighter Fractions

LPG's—The seasonal picture continued to slide down hill last week sales figure showed. Dealers again noted heavy buying of consumers for stocking purposes. However, this failed to relieve the declining picture for propane and the other heating oils.

Waxes

Microcrystalline — Unstinting pressures of demand continued to hold this commodity to a high and firm market level last week, producers reported. Seasonal sales, particularly in the wax, cardboard and paper container field, remained the major elevating factors, dealers said.

Paraffin — The seasonal sales picture holds this wax in virtually the same position as microcrystalline, dealers reported last week. Though there is virtually always a slight lag in the relative sales levels of the two petroleum waxes, dealers report particular firmness in the parffin market. The condition is expected to continue beyond the seasonal period.

Miscellaneous

Crude Oil—Demand for domestic crude will reach 6,970,000 barrels daily this month according to the Bureau of Mines. The May forecast runs some 30,000 barrels per day ahead of the prediction for April and includes crude for both domestic consumption and export.

Bureau of Mines reports on distributions of stock according to date and area is as follows (all figures in thousands of barrels):

	Mar. 24	Apr. 14
Pennsylvania Grade	2.683	2.678
Other Appalachian	2.108	2.364
Lima-Michigan	602	602
Illinois-Indiana	9.002	9.481
Arkansas	2.702	2.904
Kansas	7.646	8.093
Nebraska and North Dakota	2.079	2.016
Louisiana	15.984	16.827
North	2.583	2.619
Gulf	13.401	14.208
Mississippi	3.101	2.998
New Mexico	7.608	8.284
Oklahoma	23.506	24.159
Texas	121.615	125.289
East Texas Proper	9.279	8.656
West Texas	59.668	62.431
Gulf	21.900	22.102
Other Texas	30.768	32.100
Panhandle	2.514	2.674
North	8.814	9.527
South	4.769	4.745
Rest of State	14.671	15.154
Wyoming	15.884	16.108
Other Rocky Mountain	5.448	5.858
California (Exclud. foreign)	28.189	27.821
Foreign	1.188	1.741
Other Foreign	10.692	9.862
Total crude stocks in U. S.	260.037	267,085

Los Angeles Petroleum Market

Los Angeles.—Stocks of butane continued to ease although fairly good demand was noted for aviation gasoline requirements; listings were firm and unchanged at .069 per gallon, tankcar basis, f.o.b. Los Angeles. Propane, quoted .059 per gallon, same basis, was in adequate supply with interest moderate.

High melting point paraffin waxes witnessed steady demand with all grades reportedly in adequate supply. Prices were firm as follows:—127/131 ASTM, slabs loose, fully refined, f.o.b. refinery, San Francisco Bay area, listed .0965 per pound. 140/147 ASTM, same basis, quoted .0825 per pound. 157/162 ASTM, same basis, listed .698 per pound. All 10,000 pound minimum. Add .007 per pound for cartons. Tankcar prices posted .0815, .0735 and .089 per pound respectively.

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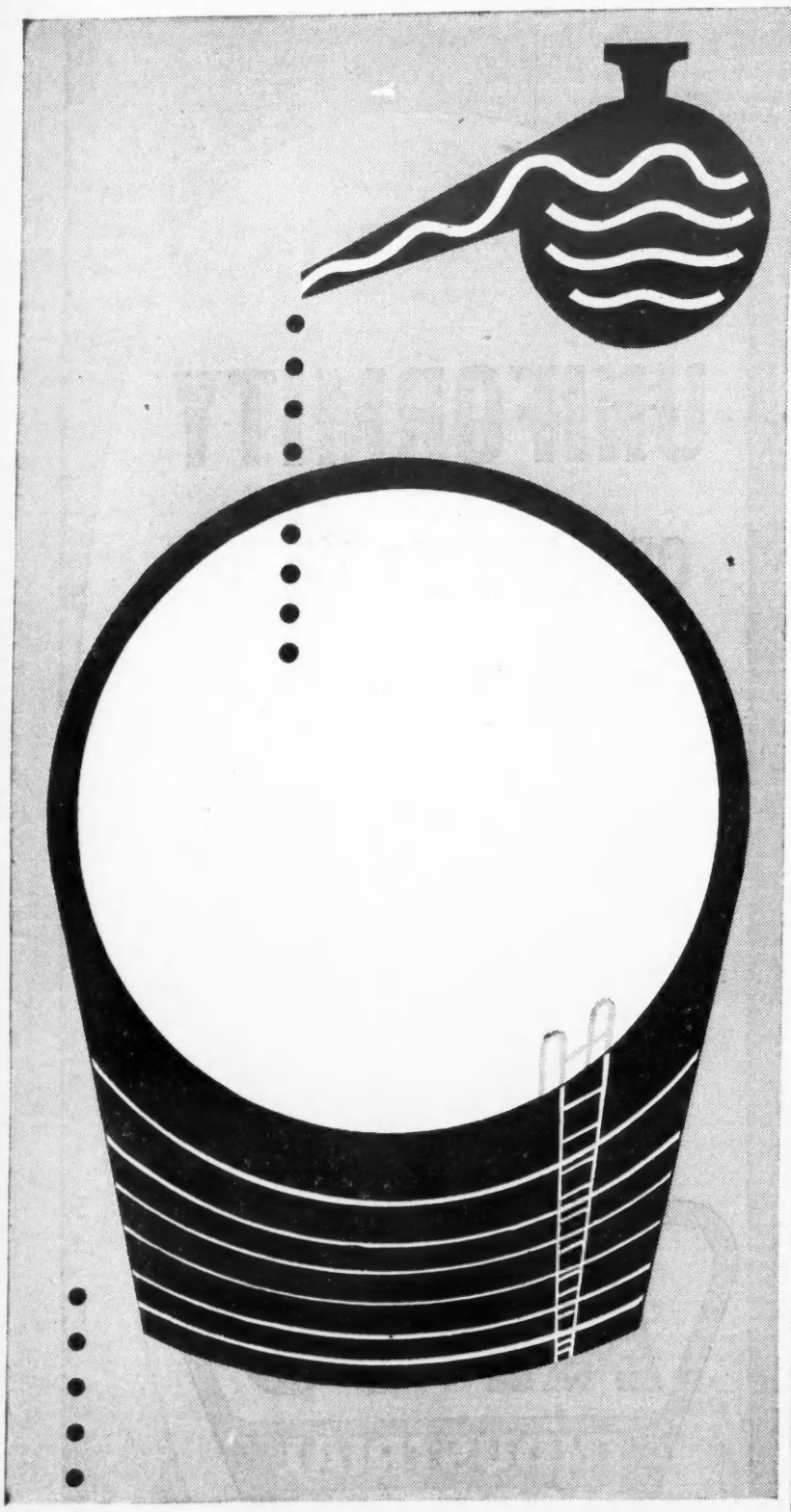

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Coal Chemicals

Naphthalene was reported soft in some areas last week. The situation presented a marked departure from conditions of only a few months ago, when makers of phthalic anhydride were having trouble getting enough of it. Producers warned against complacency, however, citing the fact that current demand was being satisfied only on account of heavy imports, a precarious source that might already have run dry but for old contract commitments, and unprecedented heavy steel production.

As to the steel production, it was expected to keep right on climbing if it can get over the obstacle of labor negotiations slated for next month.

Phthalic demand was even. With abundant supply of raw material, stability in production and normal inventories at producer and consumer levels, the market had settled down to an even pace.

Styrene monomer continued robust. The market was too strong to be shaken by reduced manufacture of new tires for new cars and more than made up this deficiency through other outlets.

One effect partly attributable to the health of the styrene market was the continued vigor of trade in benzol, which was still in heavy demand in spite of continued high production and very considerable imports.

Xylol continued tight. Strong demand abroad for DDT, in which xylol serves as carrier, was adding pressure. Other outlets were still making heavy demands.

Toluol was no better off and without immediate prospects of improvement. Domestic demand was steady and exports substantial, but increasing output was widening the margin of excess over demand and inventories were still mounting.

The new shell molding resins were giving a lift to phenol, which figured in a balanced market in heavy volume. Exports were a big sales factor.

The American Iron and Steel Institute estimated production in the week ended May 6 would amount to 99.5 percent of theoretical capacity, equivalent to production of 2,450,000 tons of steel. This figure was compared to output of 2,473,000 tons in the week previous (a figure exceeded only twice before), 2,406,000 tons in the comparable week a month earlier and 2,331,000 tons in the corresponding week of 1955.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100—1949 average)

Last week	Prev. week	Last month	May 6, 1955
115.01	115.01	115.01	114.68

For Current Prices see Page 9

Basic Products

Benzol—The market position was unchanged.

Production held the record or near-record pace. Demand for use in making styrene monomer, synthetic phenol and a broad diversity of intermediates was more than sufficient to take up output as fast as it was offered. Domestic supply was augmented by substantial imports, but a shortage persisted in several quarters. There were some exports. The volume, however, was negligible.

Creosote—Volume of sales was picking up slowly as the railroads readied ties for replacement in the roadbeds.

The program was a big one and might be two years in fulfillment. Much of the necessary white stock was uncut, and the railroads would have to round up labor to cut the trees.

Some of the new lumber would be seasoned in the traditional way, by aging for about nine months before creosoting. There was increasing use being made, however, of the newer process of conditioning the wood in a hot oil bath. The latter method is more costly at the outset but saves time and cuts storage problems.

Production continued to rise as the steel mills hiked their output. As a result, creosote inventories were very heavy.

Producers were looking anxiously for new markets. Their best bet, they thought, was in consumer sales to farms for silos, barns, fence and other out-of-doors use. They regarded this market as a virtually untapped potential of some size.

Cresols—All fractions were in heavy demand. Meta-para fractions universally were very tight. Ortho was short in spots. Prices were unchanged.

Cresylic Acid—Low-boiling acids remained very tight. Higher boiling grades were in good balance.

Uses via tricresyl phosphate as a gasoline additive and in making plastic tiles and lubricants exerted strong demand.

In the import market, pale acids in the range from 205 to 230 degrees were tight. ADF material ranging from 180 to 205 degrees was altogether unobtainable in most quarters. Disinfectant grades, acids boiling between 230 and 250 degrees, comparable to the crude petroleum cresylic, were abundant.

Phenol—The market continued in good balance, with about one-third of production capacity in reserve. Demand was strong and growing. It was getting a good boost from the manufacturers of the new shell molding resins. The export market continued to operate in heavy volume. Supplies were adequate generally, and the industry was ready to hike production substantially as expected new demand might show up in the market. Prices were unchanged from quotations established last October.

Naphthalene — Some producers last week described the position as soft. This represents a complete reversal from the position occupied only a few months ago, when naphthalene was very tight.

Heavy imports in fulfillment of old commitments were still required, however, to satisfy current demand. Any complacency as to availability of naphthalene in the

Aromatics Foreign Trade: February

Following are statistics compiled by the Bureau of Census summarizing the movement of certain aromatic chemicals in foreign commerce. Units employed by the Census Bureau have been retained in all cases. Attention is called to the fact that exports of toluol are reported in pounds and that cresols and cresylic acid ADF imports are given in gallons, while dutiable cresols and cresylic acid imports are reported in pounds.

		February 1956	*Total Year To Date*
EXPORTS			
Benzol	gals.	73,087	802,146
Phenol	lbs.	2,319,565	3,975,698
Phthalic Anhydride	lbs.	351,920	751,200
Pitch, from coaltar	tons	2,978	5,532
Toluol	lbs.	5,388,887	9,567,145
IMPORTS			
Benzol	gals.	1,577,720	6,038,234
Creosote and dead oil	gals.	2,302,175	4,778,206
Cresols and cresylic acid, ADF	gals.	146,809	361,596
Dutiable	lbs.	142,444	200,626
Naphthalene, distilled at less than 79° C	lbs.	7,138,142	13,861,150
Distilling at 79° C and over	lbs.	11,023	165,277
Xylol	lbs.	45,938	45,938

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COAL CHEMICALS

Coal Chemicals

future was unwarranted, trade sources said. They pointed out that phthalic anhydride production both here and in Europe was expected to exert heavy pressure on naphthalene supplies and that imports might dry up altogether when old contract arrangements expire.

For the present, a precarious balance was maintained. It depended on imports previously contracted for, while the spot market for imports was dead, and on continued record-breaking steel production.

No let-up in steel production was anticipated unless labor trouble should arise during the scheduled contract negotiations next month.

Some consumers had cut back customary orders for naphthalene.

The spot import market was soft. Quantities were offered at from 6½c. to 6¾c. per pound at the port, but there were no takers. Approximately 1c. is calculated as additional to the port quotation to compensate for financing, freight, labor for transferring the material from bags and converting it to molten naphthalene and loss of material in straining for removal of jute.

Traditionally, this corner of the market is operative only when a glut abroad induces foreign producers to offer material below the market or a shortage here persuades US consumers to pay premium prices at the cost of losing historical standing with US producers. Neither factor was apparent last week.

Coal Chemicals

Estimated output of coal chemicals recovered from cokeoven operations during the week ending May 6 was as follows:—

Ammonia liquor	lbs.	953,066
Ammonium sulfate	lbs.	40,586,424
Benzol	gals.	3,628,180
Coaltar	gals.	17,833,429
Creosote oil	gals.	691,814
Naphthalene, crude	lbs.	3,858,785
Pyridine, refined	lbs.	13,836
Toluol	gals.	799,430
Xylol	gals.	230,605

Toluol—Producers were still unable to find any basis for optimism.

More toluol was being produced as a by-product of steel manufacture, and the steel makers were committed to steadily increasing production over the next several years.

Domestic demand remained heavy and steady. Exports were still on the increase at last reports and were substantial. Still, the gap between production and consumption continued to grow. Stocks were very heavy and growing.

Prices were unchanged, and producers were determined to keep them where they were.

The Census Bureau, reporting February exports as 5,388,887 pounds, put a dollar value on this trade of $269,941.

Xylol—The vigorous trade in DDT was putting heavy pressure on this tight market, xylol being employed as carrier for the insecticide. Production of xylol and demand for use in resins and as a thinner in paint and varnish were unchanged. All were on the heavy side.

Prices, long unchanged, were firm.

Intermediates

Phthalic Anhydride — Demand was even. Evidently, a slight technical adjustment had been completed and the market had steadied. Producers had meantime built up inventories of 10 days to two weeks. Volume of trade was fairly heavy.

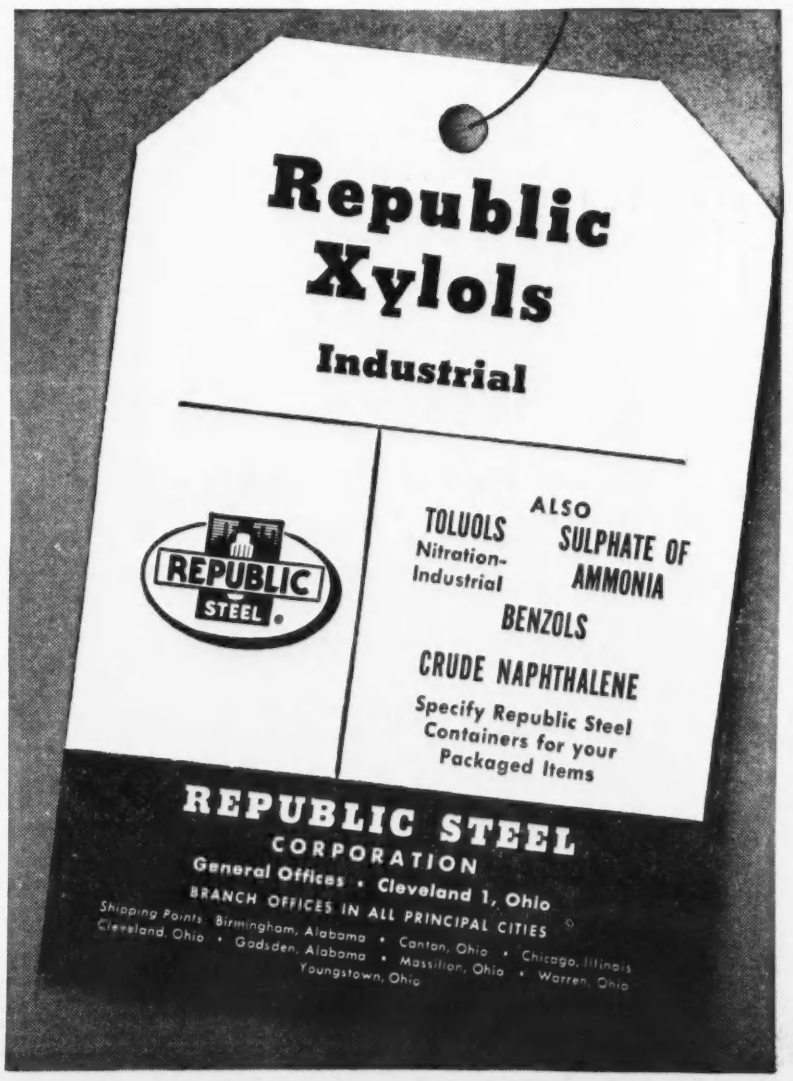
There was no longer any raw materials problem. Naphthalene, which was short only a few months ago, was said to be soft in some areas. This and other factors gave the phthalic market a stable tone.

Isophthalic acid, slow coming onto the market heretofore because of production problems, was being made now at a good rate. Phthalic producers said they had not felt the effect yet to any marked degree, but they were watching.

Styrene Monomer—The market continued to reflect the growth and diversification potentialities of this intermediate. Sales held up in spite of the reduced activity in the automotive business. Polystyrene, in particular, was vigorous in the market. Exports were reported heavy.

Production was keyed to the good demand. Supply was adequate in general, but there was no inventory problem.

Prices were unchanged and stable.



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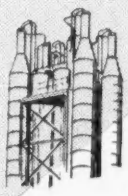

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Chemical 'Stepchildren' Win Roles

—Continued from page 3

added that his company has them "by the gram or the carload."

W. B. Anderson, of Titanium Pigments Corporation, a subsidiary of National Lead Company, New York, focused a light on titanium compounds. He pointed out:

"The compound of the element titanium, upon which an industry is built, is the dioxide in pigmentary form. To be sure, this titanium pigment industry cannot compare in size with some industries founded upon elements in metallic form such as the steel and aluminum industries. But in its sphere, the titanium pigment industry is far and away the most important commercial aspect of the element titanium.

"The future for titanium organic compounds should be promising because so many modifications of any one class of the compounds can be made as a result of the coordinating power of the titanium atom. In the alkyl titanates, for example, the four groups bonded to the titanium atom by ordinary covalent bonds can be replaced by many other groups while the two coordinate bonds cry out for company. These two bonds can latch on to other groups to form chelates, or to surfaces, or to exert an influence yet to be discovered," Mr. Anderson said.

The 'Fraternal Turns'

Columbium and tantalum, the "fraternal or non-identical twins of the high temperature metals," were discussed by Harry P. Croft, of Kennecott Sales Corporation.

"That these metals have just recently come into prominence is not due to their recent discovery," he said. Columbium was found by Hatchett in 1801 near New London, Conn., while Ekeberg in the following year discovered tantalum in a mineral from Sweden.

"Due to the co-occurrence of these metals, considerable confusion existed until they were definitely separated in 1866 by Marignac by means of the difference in solubilities of their complex fluorides with potassium. Not until 100 years after their discovery was any commercial use made of either of these metals when in 1903, von Bolton in Berlin made ductile tantalum in the Siemens-Halske plant. It was used as the first metallic lamp filament and at least eleven million tantalum lamps were made before this metal was replaced by tungsten in 1909. Tantalum was also employed in Europe before World War I for surgical and dental instruments.

"Tantalum was first produced in the United States in 1922 by the late Dr. C. W. Balke at the Fansteel Metallurgical Corporation, until recently the only American producer of this metal on a commercial scale," Mr. Croft went on. "Dr. Balke, it is recorded, made tantalum to take advantage of its chemical inertness by using it as a chlorine cell anode but, upon discovering that its oxide Ta_2O_5 prevented the flow of current when tantalum was used as an anode in solutions, employed this as a valve in the rectification of alternating current.

First Large Application

"This led to the first large commercial application of the metal in the Balkite battery charger in the early days of radio reception. There followed kindred applications an anodes and grids, and other parts of electronic tubes and capacitor elements where it is employed in the form of porous pellets or as foil, strip, wire and tube. Due to its outstanding resistance to attack by many corrosive chemicals, it was introduced into the chemical industry as a material for equipment construction about 1930, where its performance justifies its price of around $65 per pound.

"In the future it is bound to encounter some competition in the chemical equipment field from zirconium and titanium, probably in that order. These latter metals have good resistance to many chemicals, and titanium enjoys a weight advantage over tantalum of nearly a one to four ratio," Mr. Croft continued.

"In the chemical field the marketing problem, although known only to the one producer, have probably been more in the field of product development than in meeting competition. Whether the price will drop as a result of the advent of competitive metals and other tantalum producers, together with forecast new uses, remains to be seen but it would not be surprising if this occurred.

Twin Got Less Attention

"While tantalum was being developed into a commercial metal of many interesting uses, its twin, columbium or niobium, as it is known in England, was given less attention.

"Fansteel made it in workable form in 1929 but no commercial applications resulted for the metal as such. However, in 1930 it was found that the presence of ten times as much columbium as carbon in 18-8 stainless steel acted as a carbide stabilizer, providing a satisfactory solution to the problem of intergranular corrosion. It was subsequently found to improve steels of 2 to 16 percent chromium content.

"In these applications its consumption as ferro columbium increased steadily until emergency restrictions in both World War II and the Korean situation caused producers to turn to substitutes. In

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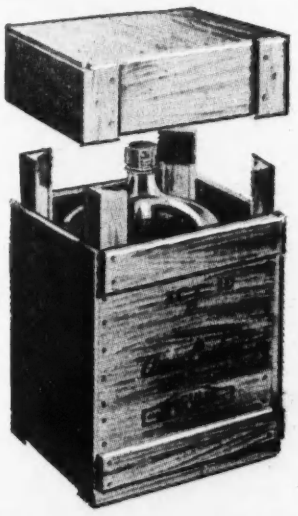

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some cases ferro columbium-tantalum has replaced the higher cost ferro columbium. In the former product the tantalum content exceeds that of the columbium, and vice versa. Columbium, however, weighing approximately one half as much as tantalum does twice the amount of work per unit of weight.

"Among the substitutes for columbium stabilized stainless steel there was developed a titanium stabilized 18-8 steel, as was an extra low carbon variety which required no carbide stabilization.

"While these products are satisfactory, there is considerable information to the effect that they suffer by comparison with the metal which they replaced, and that in the absence of restrictions and with an adequate continental source of columbium and a reasonable price for ferro columbium, the columbium bearing steels would regain the bulk of these markets," Mr. Croft stated.

Increasing Interest in Lithium

"Increasing interest in the properties of the element lithium has been evidenced during the past five decades—particularly during World War I, World War II, and in the current decade. How may we account for this?" asked P. E. Landolt, a consulting engineer, speaking on "Lithium —A Unique Element."

"During the past fifty years we have witnessed a phenomenal growth of the chemical and metallurgical industries. Scientific and technical research work must be credited for the most part with the rapid extension of such fields of application. The onset of World War I brought with it needs of a novel character that called for investigational work to solve the problems that were generated by the then deemed extraordinary requirements of the war. Available scientific literature was the key to the solution of these problems," Mr. Landolt said.

"We have seen a tremendous development of the lithium industry during the past ten years. Plant capacity has been increased at least ten fold and consumption has increased by a greater ratio.

"Lithium metal production has increased more than twenty times its production prior to World War II. I believe there will be a continuing expansion during the next ten years. It constitutes an excellent challenge to anyone in this field to recognize that a new and important field has been well opened up but has not certainly reached a point of saturation. By the development of a number of new technics, there will be, as a corollary to such development, some further indications of use or of interest which can be realized via lithium products.

Because of many news items of developments in the lithium field, much attention has been attracted to it. Unfortunately this has led to premature conclusions of where lithium may go without proper realization of what is entailed in reaching such a goal.

Improving Processing

"Sound conclusions can only be drawn by considering not only the procurement of raw material, but how the various steps of processing may be improved, and how useful markets for the material may be firmly established," Mr. Landolt said.

"However, the opening up of greatly increased reserves of raw material is quite important to the consideration of wider consumption of such material. Where the raw materials available have been limited as they were in the past, the industry was necessarily looked upon as a very specialized one and one of limited dimension.

"With the vast increase in the amount of raw material available, the possibilities for the development of a major industry become feasible. Defense developments have been of inestimable value in many ways. First, in the attention it brought to lithium, and then in the extent to which additional physical and chemical data on lithium and its compounds are made available. The systematic release of much of this information, which has been classified, will be beneficial to all.

"The rapid developments of nucleonics and the emphasis on 'atoms for peace' have generated a great deal of investigation, by which ultimately the interesting and unique properties of lithium will serve greater usefulness in the defense and enhancement of our economy," Mr. Landolt said.

Tin Chemicals Outlet

In a paper on tin and tin chemicals, Herbert E. Hirschland, manager of market research and development for Metal & Thermit Corporation, pointed out that tin chemicals are a major outlet for the metal, surpassed only by the use of tin in tin plate, bronze, solder, and babbit metal.

Approximately 7 million pounds of tin chemicals are now consumed annually. The speaker described the growing uses for tin fluoride as an anti-decay agent in toothpaste, bismuth stannate as a temperature stabilizer in ceramic capacitors, dibutyl tin derivatives as stabilizers for polyvinyl chloride, and tributyl tin derivatives as unusually effective fungicides. The organotin products are showing interesting industrial applications in many areas, he added.

Dr. Raymond A. Foos, research engineer with the metals research laboratories of the Electro Metallurgical Company, a division of & Union Carbide & Carbon Corporation, described the chemicals used in uranium extraction. Of three established methods, ion-exchange, chemical, and liquid extraction, the first is most widely used, and the last shows greatest promise for the future, he pointed out. In addition to many commonly used chemicals such as ammonia, salt, sulfuric acid and soda ash, there are substantial needs for ion-exchange resins, complex organic animes, and organic phosphorus derivatives in uranium processing, Dr. Foos said.

George Uhe Correction

Polak Trading Company, New York, has merged with George Uhe Company, and will henceforth be known as Polak Trading Company division of Uhe. OPD 4/30/56 incorrectly reported the merger the other way around.

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Dibenzylamine
N-Benzylmethylamine
N,N-Benzyldimethylamine
N,N-Dibenzylmethylamine
Benzyltrimethyl Ammonium Methoxide**
Dibenzyl Dimethyl Ammonium Chloride
N-Benzylethanolamine
N-Benzyl-N-Methylethanolamine
N-Benzyldiethanolamine
N,N-Dibenzylethanolamine
N-Benzyl Isopropylamine
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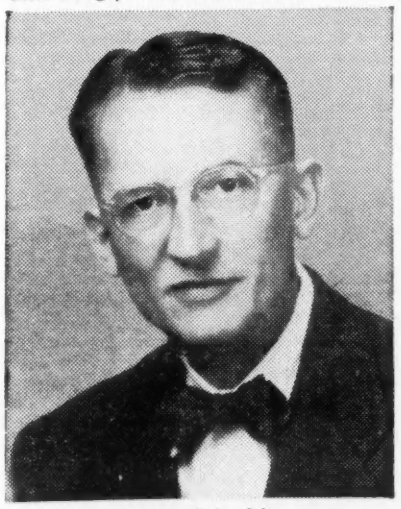
AMERICAN DRUG MANUFACTURERS ASSOCIATION

44th ANNUAL MEETING
White Sulphur Springs, W. Va.

APRIL 30 — MAY 2

FDA Planning Rules Changes— On Drugs Intended Only for Study

Food and Drug Administration is planning to revise its new-drug regulations again—this time on that section dealing with exemptions for drugs intended solely for investigational use. That is, new drugs for which applications are not effective. This disclosure was made by George P. Larrick, Commissioner of Food and Drugs, in an address last week before the American Drug Manufacturers Association. Mr. Larrick said FDA time after time is running into what he called "blatant abuses of the investigational-use label which threaten the entire purpose of the new-drug control provisions."



George P. Larrick

Apparently Used as a Loophole

"Apparently," he stated, "this label is being used by fringe operators, not to facilitate bona fide clinical investigation, but as a legal loophole for promoting some questionable products."

The FDA chief promised drug makers "full opportunity to comment on any proposed change in this part of the regulations." He said he hoped the industry would cooperate with its advice in much the same way it did when revisions of new-drug application procedures were proposed.

Mr. Larrick singled out for special tribute the American Foundation for Pharmaceutical Education, which he termed "a common meeting ground for men of good will who are genuinely interested in the future of this industry."

"We in the Food and Drug Administration," he declared, "heartily endorse the foundation's support of pharmaceutical education and especially its scholarships and graduate fellowship program and want to commend all those whose foresight makes its continued operation possible."

Also coming in for praise by the commissioner was the Combined Pharmaceutical Contact Committee of the American Drug Manufacturers Association and the American Pharmaceutical Manufacturers' Association.

He cited the committee's work as "an example of fine industry-government cooperation which has become a model for our other relationships with industry."

Biological Curbs In the Offing: Worley

Drug producers can expect the federal government to draw up "minimum requirement regulations for all biological products," John K. Worley, ADMA general counsel, told the association in his annual report. Mr. Worley also looked for a government invasion of such industry areas as research and scientific activity.

"For example," he said, "we should anticipate expanded pharmacological and clinical testing facilities in government agencies. This latter threat, I suggest, should have the earnest attention of the top managements in our member firms. The history of penicillin and other antibiotic certification should certainly serve as a warning to us."

No Serious Federal Legislation Seen

While conceding that "almost anything" can happen in this election year, the ADMA counsel could see no serious federal legislation on the horizon with any kind of chance of being enacted.

However, he indicated that a measure can be expected from Rep. Boggs regulating the sale of barbiturates and amphetamines. This piece of legislation, he thought, will probably require strenuous opposition by the association.

As for state legislation, Mr. Worley noted that we are nearing the short legislation year in the states, and, he said, "no serious regulatory legislation appears imminent."

Next January, however, he pointed out, forty-five of forty-six state legislatures will convene for the long state legislature year. "We should anticipate much legislation that will be objectionable and which will require our active attention," he asserted.

In the foreign field, Mr. Worley felt, the drug industry may look for the unexpected. "The rising tide of economic

—*Continued on page 60*

Drug Industry Must Unite To Present Its Case to Public, Dr. Dunning Tells ADMA

The prime lesson to be learned by the drug industry from the Salk vaccine furore is that it must unite to "convince the public and the public's elected and appointed officials that we are more than merchants." So stated the president of the American Drug Manufacturers Association, Dr. J. H. Fitzgerald Dunning of Hynson, Westcott & Dunning, Inc., Baltimore, Md., last week at ADMA's forty-fourth annual meeting in White Sulphur Springs, W. Va.

Dr. J. H. Fitzgerald Dunning

Dr. Dunning said that he, along with other members of the association's executive committee, felt that this could best be done by an all-industry public relations committee. To indicate that it shared this belief, ADMA's membership backed the plan and voted an appropriation of $50,000 a year for the next three years to finance the project.

Two Associations in the Fold

To raise its share of the public relations ante, ADMA also voted to assess its members one-third of their annual dues for the next three years. The ADMA action puts two major associations officially in the fold.

Last month, the American Pharmaceutical Manufacturers' Association, meeting at Boca Raton, Fla., voted to contribute $50,000 a year during 1956-58 to pay for the program.

Recalling the situation that faced the drug industry last year, Dr. Dunning said, "The public announcement that the terrible scourage of polio might be wiped out by the use of Salk vaccine created a tremendous, immediate demand for the product—a demand far exceeding the available supply.

"The import of this was such, that what was, in truth, a question of supply and distribution became a matter of grave social and political consequence.

"Proposals were made that the government take over the manufacturing and distribution, or if not the manufacturing then the distribution of Salk vaccine, or at least that the government allocate all supplies, and a number of bills embodying these proposals were introduced in congress.

Bills Socialistic in Character

"The political philosophy underlying such proposals," Dr. Dunning went on, "was certainly socialistic in character—that there should be enforced distribution, constrained and controlled distribution for fear of an hypothetical black market, or for other less obvious reasons.

"All of this was proposed despite the fact that there is no more highly regulated industry than ours, with distribution progressing only through professional channels. This all suggested that from then on any drug that could be said to affect the public welfare could, or even should, be taken over by the government.

"A precedent such as this once established could be readily stretched—like the

—*Continued on next page*

Gov't Encroaching On Industry: Bambach

A warning was sounded last week by Dr. Karl Bambach, ADMA executive vice-president, that the federal government shows increasing signs of getting "deeper and deeper into the drug business." This is taking place, he said, at a time when industry-government relations were never better.

Recounting how this state of affairs came about, Dr. Bambach stated, "The government first began to take over an important operating function of the drug business with the certification of antibiotics.

"The Food and Drug Administration now runs the quality control laboratory for every company manufacturing a certifiable antibiotic or dosage form; the laboratories of the manufacturers are only advisory to the official control laboratory in Washington.

"The National Institutes of Health," he continued, "is becoming more active in the clinical evaluation of new drugs, and the actual development of drug products.

"Furthermore, some government officials apparently believe that the Food and Drug Administration should confirm the clinical evaluation of new drugs carried out by manufacturers, but responsi-

—*Continued on page 58*

Dr. Ernest H. Volwiler

Dr. Karl Bambach

M. C. Eaton

ASSOCIATION'S TOP OFFICERS: Dr. Ernest H. Volwiler of Abbott Laboratories, North Chicago, Ill., elected to a one-year term as president of the American Drug Manufacturers Association, succeeding Dr. J. H. Fitzgerald Dunning of Hynson, Westcott & Dunning, Inc., Baltimore, Md. Dr. Karl Bambach and M. C. Eaton of Norwich Pharmacal Company, Norwich, N. Y., renamed executive vice-president and treasurer of the association, respectively.

ADMA Meeting Report

Drug Industry Must Unite to Present Its Case

—*Continued from page 53*

interstate commerce clause—to justify taking over control of almost anything that could be said to affect the public welfare—as what could not? Such legislative proposals as these had never before been seriously considered in peacetime.

"As all of you know," the ADMA president pointed out, "a far happier solution was worked out. How it was achieved deserves some brief comment. Thanks to the enlightened point of view adopted by officials of the Department of Health, Education and Welfare, who recognized the practical problems involved in the production, and more particularly, the distribution of Salk vaccine, a conference of representatives of organized medicine, public health officials and all branches of the drug industry—manufacturing, wholesale and retail, was promptly called.

"This conference wisely decided that production should be left to experienced manufacturers, and then, through committees, quickly worked out a program of voluntary distribution based on the realities of production.

"This was done before congress took any action on the many bills before it—and the importance of the timing cannot be overestimated. Legislation was finally passed by congress to provide funds to make sure that all citizens, rich or poor, had equal access to the vaccine.

"Because of the intelligent program for distribution, based on available production and designed to take care of those who most needed protection first, the socialistic proposals fell by the wayside. This fine result was due, in part, to the educational work done by our office, by producer firms who had indeed worked mightily, and by all other interested organizations.

"In all these endeavors," it was noted, "the practical point of view adopted by the officials of the Department of Health, Education and Welfare was of infinite value. These gentlemen, and particularly assistant Secretary J. Bradshaw Mintener and Surgeon General Leonard Scheele, recognized that the basic problem of production and rapid distribution could not be solved by legislation.

"In praising our own activities, we do not intend to minimize in the slightest degree the tremendously effective work done by the medical profession, and the wholesale and retail drug representatives, all of whom rallied to the standard of free enterprise.

Dangerous Precedent Avoided

"Thus, through cooperative effort," Dr. Dunning asserted, "it may be that a dangerous precedent of government takeover has been avoided. It may be, moreover, that a sounder precedent has been established, namely, that the competitive free-enterprise system with private manufacture, with distribution on a voluntary basis controlled by citizens, with government participation at a minimum, can best do a job for the public welfare."

Turning to other association highlights of his administration, Dr. Dunning noted that during the past year new rules for biological products have been under study by the National Institutes of Health.

He reminded the ADMA membership that NIH licenses the production of biologicals and, therefore, the new rules it is drawing up are of vital importance to the industry.

George F. Smith

"Because many elements of policy were involved in their drafting," he said, "a special committee composed of three members of the executive committee, five members of the biological section and four members of the legislative section were appointed.

"These gentlemen conferred among themselves and with officials of the Department of Health, Education and Welfare, who accorded them not only a polite hearing but sympathetic and intelligent cooperation.

"Even though many of our suggestions were incorporated in the regulations, which presumably are soon to be promulgated, management should recognize that mandatory methods of production are included in these licensing regulations."

Dr. Dunning went on to say that he believed that there is a growing understanding of mutual problems between government officials and the drug industry.

Special Committee Appointed

"To further nurture this tender shoot of good-will," he reported, "a special committee has been recently appointed to study how we may have better relationships with the Food and Drug Administration and the National Institutes of Health.

"This committee, which I have reason to believe will remain active for several years, is composed of the following gentlemen: John T. Connor, chairman, Adam Fiske, Leslie D. Harrop, Ernest H. Volwiler, Irving C. Winter, the general counsel of our association, John K. Worley, and myself.

"We are deeply interested in the problems that confront the Food and Drug Administration and the National Institutes of Health, and we naturally wish to interest them in our problems."

The ADMA president called attention to the fact that this is the fiftieth anniversary of the passage of the first federal food and drugs act—the so-called Wiley act of 1906.

Congratulating Food and Drug Administration for its "many contributions to the betterment of the public's health and well-being," Dr. Dunning said he felt that ADMA "might bask a bit in reflected glory."

"Our association has, in the main, whole-heartedly collaborated with officials of both the United States Pharmacopeia and the National Formulary, and of the government in the development of better standards for our products.

"It might even be said that the Food and Drug Administration has supplied the legal yardstick for standards that ADMA has always observed. A look at our membership certainly speaks of our regard for the highest standards for quality drug products."

Public Relations Plan Outlined

Details of the public relations program alluded to by Dr. Dunning were sketched in by George F. Smith of Johnson & Johnson, New Brunswick, N. J. Mr. Smith is chairman of the ADMA public relations committee.

The drug industry's public relations office, the Health News Institute, has already set up shop under the direction of Chet Shaw, former editorial director of *Newsweek*, Mr. Smith reported. These, he said, are some of the things it plans to do:

"1. We will have a great deal of publicity value information from two Health Information Foundation projects which are now approaching completion.

"a. One will be a fully documented long-term history of infectious diseases at Harvard-Beth Israel Hospital

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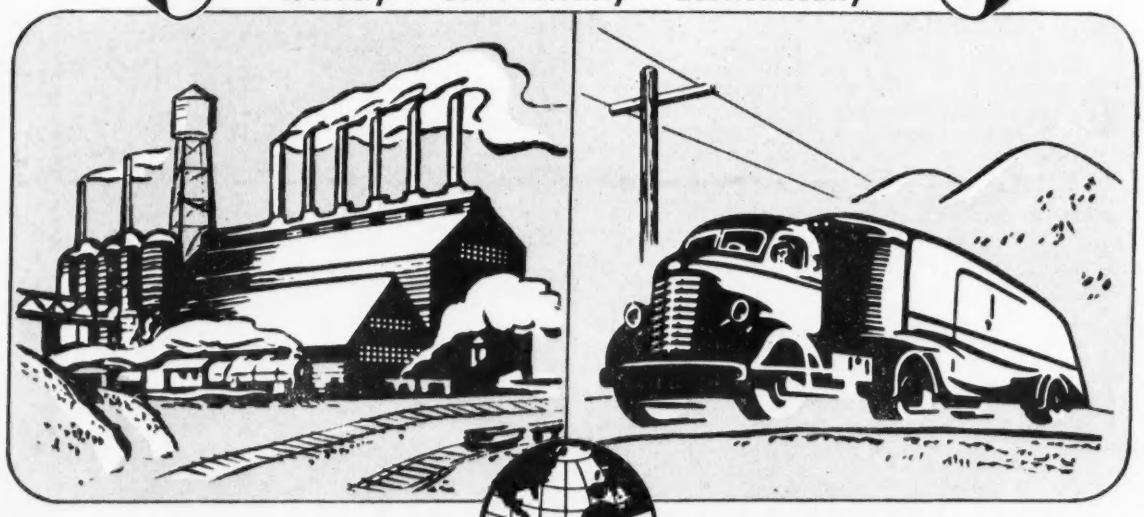

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ADMA Meeting Report

in Boston. Fortunately, that hospital has complete records of thousands of cases in the pre-antibiotic and post-antibiotic periods. Those records have been under study and analysis for a period of months and will tell a dramatic story, documented in a way that will demand recognition.

"(b) HIF is also engaged in a painstaking review of the progress in health during the last fifty years. Widely scattered information is being compiled and will be available in useful form to everyone who wants the facts about the exciting changes taking place during the past half century.

"2. These and other evidences of health progress will not only be told in print but will dramatically be portrayed by motion picture film—through the magic medium of television. We know that a good film will receive free showing on many TV channels, and we intend to make the most of that opportunity.

"Again we must thank Health Information Foundation for making this possible. The foundation's executive committee has already authorized ample funds to produce a film which—thanks to George Bugbee—will be developed and designed by his organization in collaboration with Chet Shaw's group. The film will not only be shown on television but in many other places as well.

"3. We plan to provide leaflets which the druggist will wrap with prescriptions to convey our message to the consumer.

Booklet for Pharmacist

"4. We are considering a booklet for the pharmacist and his clerks so that they will know the facts and thus be better prepared to join in the industry-wide effort.

"5. It is easy to visualize a similar—maybe the same booklet — for doctors, nurses and other members of the professional team.

"6. The program includes a speaker's kit, including suggested talks to be delivered by various members of the health team before local groups. And the kit will contain instructions on how to follow up with local publicity so that the message contained in a talk may be multiplied manifold in its impact.

'Fact Book' for Editors

"7. And for the additional guidance of editors and feature writers who deal with health topics we are, among many things, preparing a 'fact book' which will supply them with basic and factual information."

In detailing the all-industry program, Mr. Smith emphasized, "No amount of publicity—no matter how good it is—will 'whitewash' unfavorable conditions that may exist in any part of the industry.

"Someone has said that 'good public relations begin at home'. Obviously it is now especially important that we re-examine customs, conditions or practices which are in any way questionable and then take appropriate corrective steps wherever they are indicated.

"The widespread representation we expect to have in Health News Institute," Mr. Smith concluded, "should provide a forum for frank and constructive discussion of this responsibility."

Kenneth F. Valentine

Valentine Becomes ADMA Vice-President

American Drug Manufacturers Association elected a new vice-president among a variety of other officers last week. He is Kenneth F. Valentine, president of Pitman-Moore Company, division of Allied Laboratories, Inc., Indianapolis, Ind.

Mr. Valentine replaces Harry J. Loynd, president of Parke, Davis & Co., Detroit, Mich., who was elected to a three-year term on ADMA's executive committee.

Three association vice-presidents were elected to new terms. They are: L. D. Barney of Hoffmann-La Roche, Inc., Nutley, N. J.; Francis Boyer of Smith, Kline & French Laboratories, Philadelphia, and James J. Kerrigan of Merck & Co., Rahway, N. J.

Dr. J. H. Fitzgerald Dunning of Hynson, Westcott & Dunning, Inc., Baltimore, Md., who was succeeded as ADMA president by Dr. Ernest H. Volwiler of Abbott Laboratories, North Chicago, Ill. (see cut and caption on page 53), was named to the association's executive committee. This is automatic for past-presidents of ADMA under the association's electoral machinery.

W. L. Dempsey, formerly with Sharpe & Dohme Division of Merck & Co., Philadelphia, resigned from the ADMA executive committee because he is no longer active in the drug industry.

The balance of Mr. Dempsey's term on the committee (one year) will be completed by S. B. Penick, jr., of S. B. Penick & Co., New York.

Joseph Fistere of Mallinckrodt Chemical Works, St. Louis, Mo., was elected to a three-year term on the executive committee, replacing Dr. Volwiler, the new ADMA president.

George F. Smith of Johnson & Johnson, New Brunswick, N. J., was re-elected to a three-year term on the executive committee.

Dr. Karl Bambach was re-elected executive vice-president of the association, while M. C. Eaton of Norwich Pharmacal Company, Norwich, N. Y., was continued as treasurer. John K. Worley was renamed ADMA general counsel.

Drug Industry Help Sought In Biological War Defense

Help was sought from the drug industry last week by Maj. Gen. William M. Creasy, chief chemical officer of the army, in preparing the nation's defenses against biological warfare.

The fact that most biological agents could be disseminated by means of aerosol clouds, he pointed out, raises a score of problems.

"For example," he said, "the vulnerability of the human respiratory tract as an avenue for infectious aerosols calls for serious attention to the problems associated with the pathogenesis of diseases that can be produced by such means.

"It follows that the effectiveness of our antibiotics, vaccines and toxoids will not be fully known until they are evaluated against diseases produced by respiratory challenge of animals or man."

The general suggested that a possible challenge for research, therefore, might be "whether our present-day vaccines for a disease normally contracted through drinking water would be effective if this disease were contracted through the respiratory tract as a result of an aerosol cloud."

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steamed bonemeal	15.00	copper sulfate	0.15
tricalcium phosphate	13.00	manganese sulfate	0.10
magnesium sulfate	10.00	cobalt sulfate	0.02
		iodized sodium chloride	20.00%

The results confirmed previous findings of Dutch investigations which have been widely publicized. Bo-Dee Mineral Stable D-3 remained unchanged for 12 months in the presence of this mineral mixture where ordinary D-3 lost almost all of its potency in 105 days. Full detailed report of the experiments will be mailed on request.

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ADMA Meeting Report

Gov't Encroaching on Industry: Bambach

—*Continued from page 53*

ble officials of the agency itself do not, to my knowledge, advocate this course.

"Many FDA decisions on chemicals and drugs are now based primarily upon tests conducted by its own pharmacological laboratories. Instead of relying upon examination of the tests done by manufacturers, and requesting additional tests if necessary, the pharmacology division of the Food and Drug Administration often conducts its own pharmacological work.

"This puts the regulatory agency in the undesirable position of sitting as a judge of its own scientific work. I am not suggesting, however, that the FDA abandon its technical investigations in this field.

"The problem is really one of extent and emphasis, and the proper balance is a delicate one to maintain. The main emphasis should not be upon evaluation of new drug components, but upon regulatory problems connected with products already on the market.

"The pharmacology laboratories of the Food and Drug Administration," Dr. Bambach reported, "are also conducting, on a large scale, toxicity work-ups of many new chemicals being screened by others for possible anti-cancer activity. It is not research work in any sense of the word, for it is ordinary testing of the most routine nature.

Work Done on Fee Basis

"This is being done on a fee basis, quite like a typical commercial laboratory. It is not related to regulatory work, or to the traditional tests of materials purchased by the government. It is a new departure in the assumption of business functions by a regulatory agency.

"Perhaps the trend I have described is inevitable," he conceded. "The aim to develop new curative measures is certainly laudable. No one can oppose constructive attempts to conquer the dread diseases which still remain unsolved. However, the federal government can, by its very size, occupy the field so completely that industry and the universities may soon find themselves relegated to the background.

Industry May Be Forced Out

"In time they may be forced out of medical research entirely. Those interested in these policy problems should ask themselves if medical progress is made more rapidly with a system of practically exclusive government research, or instead with a healthy combination of industry, academic, and government research.

"Perhaps the most alarming excursion of government in business occurred only recently, when the legal authorities of the Food and Drug Administration decided that the present law provided for restitution of money paid by customers to purchase adulterated or misbranded drugs," Dr. Bambach asserted.

"If the restitution doctrine is upheld by the courts, now being tried in the Parkinson case, the government will be able to dictate where the money spent for certain drugs is to go.

"Thus the trend for the government to enter the drug business has taken these steps:

"(1) Running the quality control laboratory for certain drugs.

"(2) Carrying out its own tests, then sitting as judge of its own work.

"(3) Conducting pharmacological tests on a commercial laboratory basis.

"(4) Conducting clinical evaluation of new drugs, and developing new drugs.

"(5) Requiring that customers must be refunded the money paid for certain drugs.

"This trend should be carefully considered by everyone interested in the future of the drug industry," he contended. "More than that, it seems to me, it should be closely examined by any citizen who is deeply concerned with the future of his country.

Government's Role as Umpire

"Until recent years the administrative arm of the government has served as the umpire. The congress has laid down the rules of the game, and the individual companies of each industry have furnished players on the competing teams.

"While the drug industry, so vital to the health of the nation, can in no sense be regarded as playing a game, this analogy might serve to illustrate the problem I have been discussing," he said.

"Now the competing teams in the antibiotic industry have government players on them. In the future government officials may be participating as first-string players on other drug industry teams.

"With the government now showing an interest in playing as well as umpiring, we find it casting avid eyes upon the ball as it moves over the field and giving it a resounding whack every once in a while. For isn't it more fun to be a player than an umpire?"

Drug Act and Williams Cited on Anniversaries

American Drug Manufacturers Association in separate resolutions marked two birthdays last week.

ADMA joined in the nationwide commemoration of the first federal pure food and drugs act—the so-called Wiley act of 1906—on its fiftieth anniversary.

The association also honored one of its long-standing members, Victor E. Williams of Monsanto Chemical Company, St. Louis, Mo., for twenty-five years of service on the ADMA entertainment committee.

Automation Not One-Way Street, Drug Makers Told

Drug industry executives must wake up to the fact that "automation is not a one-way street," Frank J. Messmann of Wm. S. Merrell Company, Cincinnati, Ohio, declared last week.

In reporting on the activities of ADMA's production and engineering section, of which he is chairman, Mr. Messmann said that top management must do more than just pick up "the tab for the high priced equipment which goes into our automatic factories." He pointed out that "many problems go with this equipment."

Mechanization, he contended, "necessarily brings with it less flexibility in terms of products and packages and, even more important, in terms of capacity.

"On the one hand, we are faced with an increasing need for flexibility and, on the other, we find our plants equipped with less and less flexible equipment."

Mr. Messmann also suggested that a great many of the drug industry's problems today are brought on by the stepped-up rate at which new products are brought on the market.

"To stay competitive and to bring the benefits of new drugs to the medical profession," he said, "new products are being introduced at an increasingly rapid pace.

"You expect your production and engineering people to produce these products on very short notice and in large quantities. This creates many problems, particularly since many of us do not know what we shall be called upon to produce next month.

"The magnitude of this problem," Mr. Messman continued, "is driven home to us when it is realized that probably half of the volume of many of our companies is in products which were unknown five years ago."

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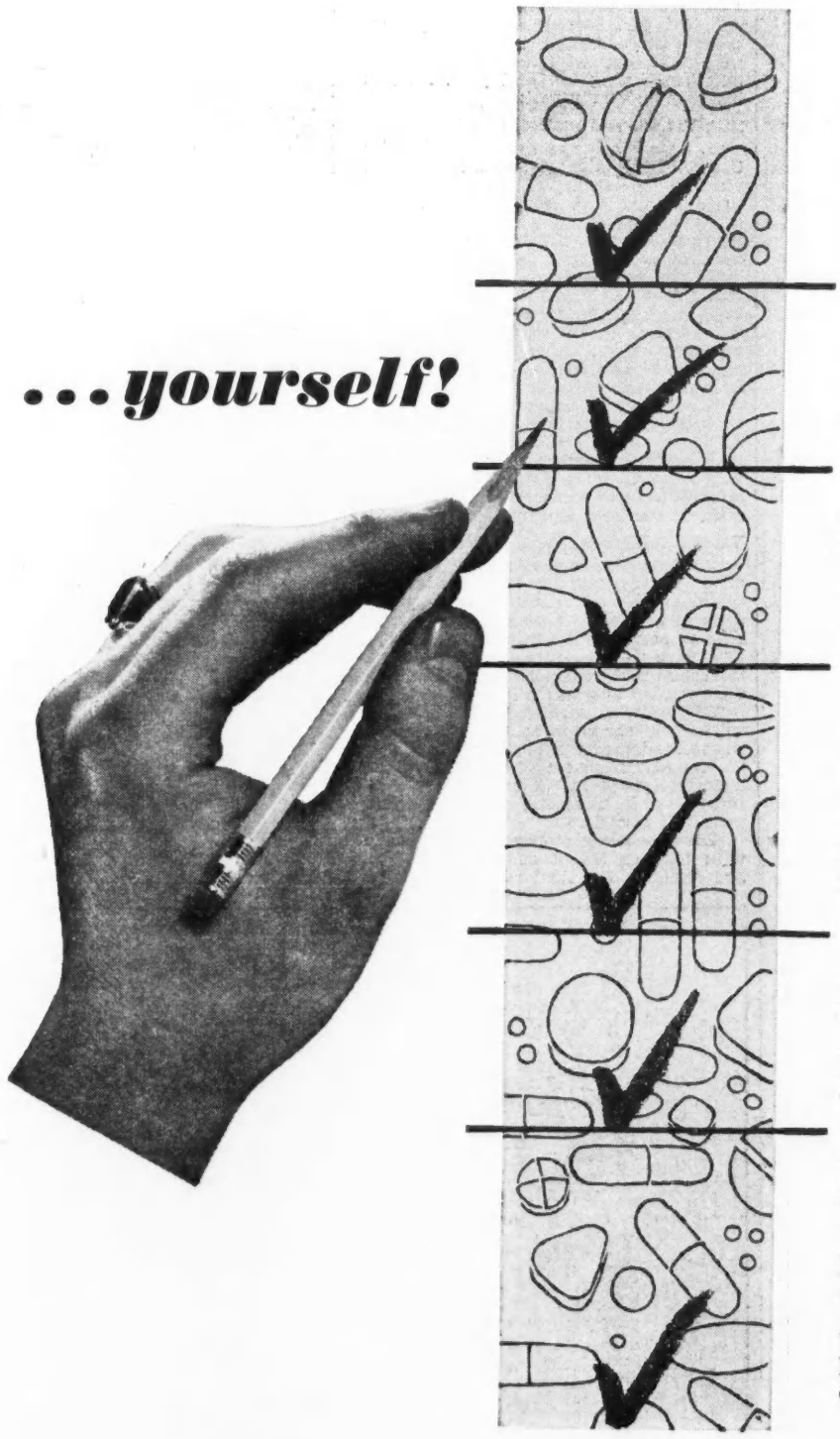

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Biological Curbs in the Offing, Worley Says

—Continued from page 53

nationalism in many countries, complicated by communist propaganda, can bring forth many problems to trouble our industry, in addition to those simply involving taxes and patents."

In all, Mr. Worley said, the general counsel and ADMA's legislative section were kept busy with ten major industry questions during the past year. Here is his item-by-item report:

Salk Vaccine and Biologics Curbs

"1. Salk Vaccine and General Biologics Control Legislation: These matters have received too much publicity to be given anything but brief reference here. The subject is noted more for the extreme legislation and regulations which we successfully avoided than for what did occur.

"In passing, however, I should mention that president Dunning and Karl Bambach, as well as the chief executives of the interested firms, did some excellent background work on Capitol Hill and with the various departments of HEW at very critical times.

"The principles involved here are common to all member firms, and this subject may have stirred up latent forces in congress and in government bureaus which can only result in more regulation and more competition for our industry by government in the field of applied research.

Vaccine Minimum Requirements

"2. Salk Vaccine Minimum Requirements Regulations: The subcommittees of the biological and legislative sections have done some excellent work in this matter. This is an unusual situation in that the NIH gave us a preview of the proposed regulation and an opportunity for hearing before publication in the *Federal Register*.

"Although apparently this matter involves only six member firms, there is a strong feeling among us that the pattern of this regulation may be applied to all biological products. A number of meetings were held among the group and with NIH officials.

"Several policy statements and briefs were filed on behalf of the association, and although the final regulation which we anticipate still contains objectionable features, it is nevertheless much improved over the draft originally submitted.

"Within the next few days the proposed regulation should be published in the *Federal Register*. Hayward Coburn of Sharp & Dohme counsel was a large contributor to our success in this regard.

Barbiturates and Amphetamines

"3. Barbiturates and Amphetamines: This matter has been fully reported in the trade press. Briefly, and to summarize, our activities grew out of conferences among several member firms at the annual legislative section meeting in October.

"We have had conferences with FDA officials, including Commissioner Larrick, on the basis of our recognition of a serious problem involving abuses in unlawful consumption of these products—but not serious as far as addiction is concerned.

"We found FDA reasonable and interested in federal legislation only to fend off anticipated radical legislation in this field, perhaps following the pattern of the Harrison act, covering narcotics, or worse, as a result of the Boggs and Daniel subcommittee hearings.

"The FDA proposed act has been submitted to Rep. Boggs at his request, but as yet has received no sponsor and has not been introduced into congress. It involves briefly the following:

What Proposed Act Involves

"(1) Making all barbiturate and amphetamine shipments — intrastate as well as interstate—subject to FDA jurisdiction by employing the same type of legal language that was used in the margarine amendment to the FDA law.

"(2) Record keeping throughout distribution channels to show stocks received and stocks sold with right of inspection by government inspectors.

"(3) Listing of manufacturers for identification so that clandestine and

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unauthorized producers may be more easily identified.

"(4) Prohibition of and making unlawful possession except by listed manufacturers, authorized dealers, licensed physicians, and users who receive on Rx or from a physician.

"If the record keeping is not onerous, there seem to be no serious objections among our members to items 1, 2 and 3. Although there is no unanimity with respect to item 4, it has been decided that the association official position will be in opposition to an unlawful possession provision.

New Drug Application Rules

"4. New Regulations for Handling New Drug Applications: The FDA published in the *Federal Register* last fall a new set of proposed regulations for the handling of new drug applications. They were far-reaching in effect. Some were good—giving us some of the things we have been asking for during the past few years. And some were entirely too broad.

"A special committee of the section was appointed, with the chairman of the medical section and chairman of the contact committee as members, to work with the general counsel in this regard. The APMA was also invited to appoint a member to the committee, which thereafter operated as a joint ADMA-APMA committee. We have had several meetings with FDA officials and have filed several briefs.

"There appeared to be no serious differences in regard to policy. The particular wording of some of the provisions appeared to be the principal item of contention. Through the good offices of Commissioner Larrick and Dr. Holland, medical director, we had submitted to us revisions of the redrafted form of regulation and an opportunity for discussion and the filing of written representations before final publication.

Parkinson Case

"5. Parkinson Case: As reported at the last annual meeting, in this case, because of its smelly nature, we decided not to intervene or file a brief on the question of restitution. Recently a decision has come down from the district court in California holding against the FDA on the matter of restitution. We are informed that the FDA has decided to appeal on this point.

"We have examined the lower court decision and shall endeavor to secure copies of the opposing briefs. If we believe that we can be of assistance in having this very important legal question properly presented and decided, we may wish to reconsider our decision and may determine that it would be advisable to file a brief on the issue of restitution as a friend of the court.

Carbromal Case

"6. Carbromal Case: This case was started by the Tailbe-Nason Company of Massachusetts before the FDA, to have one of its products declared non-habit-forming under the act and regulations.

"Because of the apparently sensational testimony of Dr. Nathan Eddy as to the habit-forming proclivities of a wide variety of drugs not heretofore considered as such, we procured and studied a transcript of the record of testimony of the first hearing, went over it with Dr. Sevringhaus of the medical section, and conferred with FDA—having in mind that a possible intervention or collateral brief might be indicated.

"Testimony of Dr. Eddy at a later hearing in the case favorably supplemented his previous testimony. The ruling of the examiner has been filed and the FDA has decided not to amend its habit-forming regulations in this regard. Nothing detrimental to the industry generally is in the findings or in the ruling of the FDA.

State Legislation

"7. State Legislation: Forty-six state legislatures were in session during part of the association year; seventeen convened in January of 1956 and some have now adjourned, without the passage of any legislation too seriously affecting our industry, in my opinion.

"We have filed numerous protests and objections to proposed legislation on its introduction into the several state legislatures and have worked with other pharmaceutical groups, nationally and in the states, to accomplish desired ends.

"When appearances are necessary at public hearings, we have found that we can obtain the required local color by having local representatives of member firms attend. We expect that our mem-

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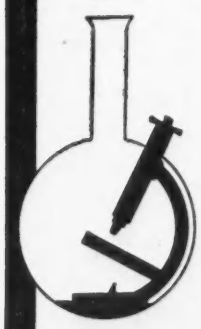

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bers will continue to cooperate in this regard if individual firms are not called upon too frequently.

"Starting in January, 1957, we will see about forty-five legislatures again in session. However, we are using the interim lull to see what can be done to improve our effectiveness in the future in anticipation of more serious drug regulation legislation. Our success is due in large

John K. Worley

measure to the able leadership of the state legislation committee under Walter Beachboard, chairman.

"We have filed briefs and I appeared before the drafting committee of the Council of State Governments, going over in detail our various objections to the council's uniform bill on hypnotic and somnifacient drugs. I believe the final draft of this bill, as well as the uniform state act on barbiturates of the National Drug Trade Conference, on which we have been working, have eliminated most of the features found objectionable to us.

"Despite our objections, California at its last legislative session passed a law providing that wholesalers and branches of manufacturers must employ registered pharmacists in their establishments for supervisory purposes, with the proviso that this requirement would not be applicable if other qualified supervision adequate to protect public health were engaged, as provided by regulations of the California Board of Pharmacy.

"The board held hearings on regulations under this law, which we covered. However, there apparently is no agreement among the board members, and therefore to date no regulations have been issued. We are watching this situation, and regulations should be anticpated during the next association year.

Tax Relief on Foreign Income

"8. Income Tax Relief on Foreign Income: The economy drive of the administration and the group around Sen. Byrd made it practically impossible to obtain the desired relief from congress during the last session. However, in the meanwhile, through the fine efforts of the joint tax committee of the legislative and financial sections, we succeeded in winning the support of larger and more influential trade groups which we did not have before.

"Despite statements from the White House and Secretary of the Treasury Humphrey to the effect, among other things, that an easing of the present tax burden on income from foreign operations is needed to facilitate the investment of American capital abroad, the administration appears unwilling to support anything unless it be very narrow relief.

"At a meeting of the Joint Tax Committee, also attended by representatives of the Manufacturing Chemists Association and National Foreign Trade Council, we found it impossible to obtain the required unanimity among member firms. Therefore the association is taking no official position, and individual concerns are left to their own devices with the Treasury Department and in congress.

Italian Patent Situation

"9. Italian Pharmaceutical Patent Situation: I have apologized in the past for repeating this old chestnut in my reports, as it is running over a longer period even than the familiar New York City ordinance case. However, I believe we must continue to take this matter seriously.

"Not only have our member firms been repulsed in their efforts to obtain the issuance of patents, but recently the Italians have introduced a new law covering, among other things, provisions that are discriminatory in the matter of trademarks as far as foreigners are concerned, and they have also placed an embargo on the transmittal of funds under royalty license agreements which our patent-holding member firms have with Italian pharmaceutical concerns.

"We have had a number of meetings of our special committee on this matter, and with State department officials, and have filed several briefs with the department. The whole situation is so serious that Dr. Huber, of Geigy, in Basle, and generally the representative of all of the Swiss firms, asked to meet with me and representatives of interested firms, which he did in February last.

Strong Representations Made to Italy

"We also proceeded to the department for a meeting with Mr. Kalijaarvi, deputy assistant Secretary of State. We know that representatives of President Gronchi's party were contacted on their recent visit to this country and that strong representations have been made under instructions from the department to the Italian Government through our embassy in Rome.

"It is small comfort, but we learn that the British, Swiss and West Germans, whose governments are much more vigilant on behalf of the commercial interests of their industrial concerns than our own, are faring no better in Italy.

"We find junior officials very energetic and sympathetic, but apparently at policy levels, our government officials covering the foreign field appear much more interested in giving away our money than protecting the commercial interests of our industrial concerns, from whom they must obtain the tax dollars for the giveaway.

"As I have reported before, Italy is directly important to some of our member firms, but all are interested in seeing that the Italian spirit does not spread to the other so-called democratic countries, with great harm to our respective equities in patents and trademarks.

French Turnover Tax

"10. French Turnover Tax: This has been a very troublesome problem for some time to a number of our firms which have royalty agreements with French licensees. In conjunction with other industrial interests, we had meetings with Treasury Department officials running over a period of many months.

"We finally succeeded in having Dan Throop Smith, special assistant to the Secretary of the Treasury in charge of tax policy, include this item in the negotiations with the French for a new tax treaty, and submitted a brief supporting the position of our member firms.

"An agreement was reached with the French Ministry of Finance and Economic Affairs concerning the application of French turnover taxes to license fees received by American owners of patents, copyrights, trademarks and manufacturing processes or formulas licensed for use in France.

"The agreement is effective February 15, 1956, in accordance with an exchange of letters by the Secretary of the Treasury and the French Minister of Finance. Under the terms of the agreement, an American licensor who qualifies as an inventor is exempt from the French turnover tax. American firms have six months within which to establish their status as inventors.

"James Fulton, chairman of the foreign law committee, was the largest contributor to our success in this regard."

Sickness Is Often Avoidable: HIF Head

Large segments of the American public are "needlessly" sick because they do not seek or receive the medical care available to them, George Bugbee, president of the Health Information Foundation, told ADMA. Mr. Bugbee said the progress of medicine "has far outrun the public's willingness to take advantage of it."

The reasons for this lack of public participation in medical advances, he said, are varied. They include lack of information about medical care, fear of submitting to a medical checkup that may disclose a serious illness or sheer negligence. Lack of funds is not the major deterrent, he declared.

Whatever the reason, he said, "a vast amount of illness is never brought to the attention of doctors and is consequently undiagnosed." Results of recent HIF surveys aimed at finding out to what degree the public is using available medical care,

ADMA Meeting Report

he added, "show over and over again that only a very small portion of the public is reaping the full benefits of modern medicine."

Doctor and patient alike, Mr. Bugbee said, share the responsibility for extending the benefits of modern medicine to greater numbers of the American population. Of the hundreds of doctors questioned in the survey, being carried on by the National Opinion Research Center of University of Chicago under a foundation grant he said, only 13 percent said a general physical examination is unnecessary unless the patient has some specific complaint. Yet fewer than half of these doctors' said they made any point of recommending regular yearly checkups to their patients.

George Bugbee

"Doctors cannot make full use of their greater understanding of disease if people do not consult them promptly," Mr. Bugbee pointed out.

The HIF president said a recent survey in Hunterton County, N. J., carried on by the National Opinion Research Center for the Commission on Chronic Illness, disclosed some striking facts about public willingness to make full use of medical care. Residents of the county were question exhaustively about their medical history. Clinical examinations were given to a selected portion of those interviewed.

Sixty-one percent of all heart conditions found in the clinical examination had not been reported in the original interview; 69 percent of the diseases of the digestive system had not been reported, and 89 percent of the diseases of the genito-urinary system had not been mentioned to the interviewers.

Need for Medical Checkups

"It seems clear," Mr. Bugbee said, "that neither the patient himself, nor even his personal doctor was aware of most of the conditions turned up by the thorough clinical examination. And it follows that the encouragement of annual medical checkups on the part of the public would result in the detection of a vast number of pathological conditions which are now going undiagnosed and untreated."

The key person in the whole health picture, Mr. Bugbee declared, is the practicing physician, who is in "a strategic position" to influence his patients' behavior. But there is some evidence, he added, that doctors in general "do not take full advantage of the prestige they enjoy with the public and of the influence they can bring to bear on people's health practices."

"If the present 29 percent of the public who say they get a routine checkup every year or two could be boosted to 50 or 60 percent of the public, the impact on the nation's health—and on its health resources—would be tremendous," Mr. Bugbee said.

Trade Briefs

Schering Corporation, Bloomfield, N. J., has named Dr. Katherine Hain to its staff of medical writers.

American Alcolac Corporation, Baltimore, Md., has added Andrew J. Reed as senior analytical chemist.

Chas. Pfizer & Co., Brooklyn, N. Y., has opened a northwestern distribution center in Portland, Ore.

E. R. Squibb & Sons Division of Olin Mathieson Chemical Corporation, New York, has officially opened its newly-built Chicago branch headquarters.

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Drugs, Fine Chemicals

Dextrorotatory, USP grade calcium pantothenate was reduced $15 per kilo last week. The decline was the second such reduction in nine months and the first to date in 1956. The reduction was the latest in a number of price slashes in synthetic vitamins this year and as a result, it was anticipated that overall consumption will be stimulated to a higher level. The two principal bulk antibiotics, penicillin and streptomycin and its dihydroform, were advanced in the second such action this year. Since earlier in the year, the market trend in these antibiotics has been toward increased price firmness. This was conditioned by an improved demand and the necessity of producers to raise selling prices to a level commensurate with manufacturing costs.

Bulk penicillin, in all forms was advanced ¾ cent per 1,000,000 International units while streptomycin and dihydrostrepomycin were increased ½ cent per gram. Whether the trend toward higher prices will continue was a matter for conjecture but it appeared probable that the present strength in the spot market will be maintained.

The demand for synthetic camphor was reported to be holding up at a generally fair rate. Camphor tablets, in particular, were said to be moving at a brisk seasonal rate. The late spring has held back the usual surge in demand for camphor and other moth proofing chemicals but it was currently in full swing. Technical camphor was noted to be 4 cents per pound lower, in single barrels or more, as a result of a price cut some time ago. USP camphor prices were firm and not expected to change in the near future.

Seasonal increase in inquiry were noted in citric acid, sodium benzoate, zinc oxide and hydroquinone, all of which move into items which are seasonally in demand, such as soft drinks, pharmaceuticals and photographic chemicals.

Fifty-one shipments of foods and drugs were seized in March for alleged violations of the Federal Food, Drug, and Cosmetic Act, the Food and Drug Administration reported.

The food seizures involved approximately 491,000 pounds of contaminated foods. The report also listed 20 criminal actions terminated and two permanent injunctions issued by the Federal Courts during the month.

More than 580,000 pounds of unfit foods were voluntarily destroyed by manufacturers or dealers under the observation of inspectors, or diverted to nonfood use.

ACTH—Demand for ACTH was reported to be running at a steady rate. Supplies were adequate to meet consumer requirements, however, it still would be highly desirable to develop a new source of the drug, it was said.

As the case of insulin, synthesis of ACTH is not possible with present knowledge of chemistry because the molecule is too large. Work has been done on splitting the molecule to find a product which will have a similar reaction to ACTH. Another approach is to find additional natural sources of ACTH.

Another research problem is the finding of a preparation which can be taken by mouth rather than injection. Since ACTH is a protein, it is broken down under the digestive process, and very little, if any, of the drug taken by mouth is absorbed without significant alteration of the active principle.

Ascorbic Acid—Demand for ascorbic acid was reported to be running at a brisk seasonal rate. Supplies were adequate to accommodate consumer requirements while prices were unchanged and steady. Overall consumption of ascorbic was expected to continue to increase in view of the lower cost to consumers resulting from the price cuts last February. The problem of competition with lower priced imported material has declined considerably.

The United States Tariff Commission reported that production of ascorbic acid totaled 307,346 pounds in February compared to 265,593 in January.

Calcium Pantothenate—Prices were reduced $15 per kilo last week in the first price change in this item this year and the second in nine months. The new schedule on calcium pantothenate, dextrorotatory, USP, was $45 per kilo for all quantities from 100 grams up to a 50 kilo drum.

Camphor—Demand for synthetic camphor was reported to be holding up at seasonally fair levels. The tablets, however, were reportedly moving at a better rate of inquiry than the powder, a normal seasonal development in view of their use in moth-proofing. Prices were firm on the USP grade material and no changes were anticipated.

Technical grades camphor, was currently selling at 48c. per pound in single barrel lots or more. This material underwent a decline on 4c. per pound earlier in the year, it was noted.

Citric Acid—Despite the late start of warm weather this Spring, citric acid has been moving at a good demand into many diversified channels in addition to its use in the manufacture of soft drinks. The list of food and industrial uses for citric acid is long and varied. Its usage in plasticizers has been on the upswing as well as its application in plating baths. Supplies were adequate to accommodate consumers' requirements and were expected to continue in view of the large production capacity and the interchangeability of equipment with which citric acid can be made. As a result, additional facilities for a setpup in citric output can be utilized, if necessary.

Mercurials—Demand for this group of compounds was reported to be holding up at steady levels. Despite almost continuous fluctuations in the price of mercury metal over recent years, mercury salts remain unaffected. Current price levels have been in effect for some time and there appeared to be little likelihood of any changes in the immediate future.

Agricultural chemical manufacturers have stepped up their takings of mercury salts while a significant amount of the oxides were reported moving into paint pigments, particularly those manufactured for marine usage.

Molasses—Prices for feed molasses were generally unchanged during the week ending May 1, 1956. Demands for blackstrap at New Orleans continued slow, with prices at 13c.-13¼c. per gallon. Blackstrap demand at East coast terminals was moderate-to-good and on the West coast generally good with prices unchanged. Blackstrap supplies were again adequate at Norfolk, but continued limited at Jacksonville. Citrus molasses was $18 to $20 per ton, f.o.b. Florida mills, with supplies very limited. Demand for beet, citrus and corn molasses was good-to-strong.

United States molasses importers have received formal notice from the Cuban Sugar Stabilization Institute that all Cuban blackstrap purchased by them must be removed from Cuba by May 31, 1956, according to trade sources. This is to make room for the large volume of 1956 high-test molasses production.

Molasses used in the manufacture of ethyl alcohol totaled 9,400,000 gallons during February, an increase of 1,600,000 over the previous month. Molasses use in the production of distilled spirits also increased during February. Stocks and production of ethyl alcohol decreased slightly during February.

Blackstrap production from the 1956 Cuban sugar crop amounted to 145,300,000 gallons as of March 31. This compares with 137,900,000 gallons produced as of same date a year ago. The yield of blackstrap per short ton of raw sugar on March 31 was 39.6 gallons. This is 2.8 gallons more than the comparable yield a year ago. Twelve of the 160 mills had completed grinding operations as of March 31.

Niacin—The market was routinely active. Inquiry was steady and supplies adequate to accommodate consumer require-

Price Trends

Advanced

Dihydrostreptomycin, ½c. per gram.
Penicillin, bulk, ¾c. per 1,000,000 International units.
Streptomycin, ½c. per gram.

Reduced

Calcium pantothenate, dextrorotatory, USP, 1½c. per gram.
Camphor, technical, 4c. per lb.

Comparative Price Indexes

(100—1949 average)

Last week	Prev. week	Last month	May 6, 1955
65.84	65.84	65.84	67.18

For Current Prices see Page 9

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Phenobarbital
Phenobarbital Calcium
Phenobarbital Sodium
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Alpha-Phenyl Butyric Acid
Secobarbital Sodium
Theophylline

AROMATIC and FLAVORING CHEMICALS

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Diacetyl
Ethyl Phenyl Acetate
Phenyl Acetic Acid

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Benzilic Acid
Benzoin
Benzyl Alcohol
Benzyl Chloride
Benzyl Cyanide
Cyanoacetamide
Chrysanthemum-Monocarboxylic Acid Ethyl Ester
Dibenzyl Ether
2,5-Dimethyl Hexadiene-1,5
2,5-Dimethyl Hexadiene-2,4
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Potassium Phenyl Acetate Solution

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n-Butyl Diethyl Malonate
Ethyl-1-Methylbutyl-Diethyl Malonate
Ethyl-1-Methylpropyl-Diethyl Malonate
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Phenyl Diethyl Malonate

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Drugs, Fine Chemicals

ments and expected to continue in the future. Prices were steady. The use of niacin and niacinamide continues to increase in food products particularly cereals and flour.

Production of niacin and niacinamide in February totaled 191,310 pounds compared to 205,678 pounds in January, 1956, according to the most recent estimate of the Tariff Commission.

Penicillin—Bulk penicillin prices have been advanced again, according to a recent producer report. Current prices ranged from 4¾c. to 5.2c. per 1,000,000 International Units, depending upon quantity bought. The price trend in this item as well as in streptomycin has noticeably firmed in the past few months following a considerable period of weakness. The increase was a full ¾c. per 1,000,000 units over the previous advance in March. It has been known for some time that profit margins on penicillin were quite low as a result of the slack demand. Inquiry has increased and the advance in prices was expected to widen the margin between higher manufacturing costs and the selling price.

Streptomycin—Demand for streptomycin was reported to be running at a brisk pace. The spot market has strengthened appreciably in recent months and prices were advanced for the second time this year. The current schedule ranged from 7c. to 7.45c. per gram depending upon quantity. This was a ½c. per gram increase over former levels.

The increases in streptomycin and dihydrostreptomycin quotations were expected to bring profit margins into a more equitable balance with rising manufacturing costs and further reflected an improvement in overall demand.

Thiamin—The market was reported to be holding at a good level last week. Supplies were adequate to accommodate consumer requirements while prices were steady.

Imports of thiamin have declined appreciably in the past few months largely as a result of the price slashes in the synthetic vitamin schedules earlier this year which were credited with making domestically manufactured material competitive with imported thiamin, on a price basis.

Production of thiamin derivative totaled 23,085 pounds in February compared with 15,103 pounds turned out in January, according to the Tariff Commission.

Botanicals

The late start of Spring has delayed the growth of botanicals in southern areas but dealers were confident that this month would see the first of the new crop collection offered in the spot market. Although the collection season has barely commenced there have already been some indications that prices on many botanical items will very likely go higher this year in view of the establishment of the minimum wage in March which was expected to remove some of the former incentive to supplement incomes by botanicals sales to shippers at origin. Also of significant importance insofar as it is expected to affect the labor supply is the fact that many new industrial plans have opened up in the South, thus affording a more secure employment as well as more plentiful job opportunities to marginal laborers.

Imported botanicals from parts of Europe which were severely hit by the extremely cold weather of last winter were expected to be higher in price this year in view of the frost damage was reported to have damaged plant life to a considerable extent.

Mandrake Root—The spot situation is unchanged. Supplies are on the tight side while inquiry was steady. Prices were firm.

Witch Hazel Leaves—Collection of this botanical this past season was smaller than usual with the result that the market has firmed up.

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Soybean April 1 Stocks Are Highest on Record

Soybean stocks of 176.5 million bushels were reported in all storage positions on April 1 by the Department of Agriculture last week. These are the highest April 1 stocks of record, exceeding last year, the previous high, by only one-half million bushels. Stocks on hand April 1, 1954, amounted to 118 million bushels.

Included in the current totals are farm stocks of 60 million bushels, down nearly half from a year ago. In erior mills, elevators and warehouse stocks totaled 27 million bushels, also down sharply from the nearly 41 million bushels in the same positions April 1, 1955. Terminal stocks amounted to 22 million bushels, 5½ times as large as those of a year earlier. Processing plants held 67.4 million bushels, almost 4 times those of April 1 last year.

Pipeline Company Seeks Okay for 277-Mile Line

Transcontinental Gas Pipe Line Corporation, Houston, Tex., has applied to the Federal Power Commission for a certificate to lay 277 miles of pipeline in Louisiana, Mississippi, Alabama, Georgia, South Carolina, North Carolina, Virginia, Maryland and Pennsylvania.

The project will cost $42.3 million and will enable Transcontinental to increase its capacity by approximately 104.5 million cubic feet daily. The tideland area of the Carolinas is earmarked for 40 million cubic feet per day.

Diamond Chlorinated Unit Revamps Executive Staff

Three staff appointments in the chlorinated products division of Diamond Alkali Company, Cleveland, Ohio, have been announced. Dr. M. J. Skeeters, acting manager of research since June, 1955, has become manager of research.

Alex Hlynsky has been named divisional group leader for research. Robert J. Orlik, a member of the divisional administrative staff since May, 1955, takes over the assignment of sales promotion representative for agricultural chemicals.

Lubrizol Corp. Announces Key Executive Changes

Dr. T. W. Mastin, director of research and development, has been named vice-president in charge of the research and development division of Lubrizol Corporation, Cleveland, Ohio.

M. R. Clapp, Assistant Manager of the Manufacturing Division, has been elected to the board of directors of the company. He was chosen to fill the vacancy created by the resignation of C. L. Stone.

Bids Wanted

Acetone, 160,000 lbs., inv. 112, May 18, Supply Officer, Navy Dept., Naval Powder Factory, Indian Head, Md.; 46,751 gals. acetone, tech., West Coast, inv. 119-B, May 14, Armed Services Petroleum Purchasing Agency, Washington 25, D. C.

Ammonia, 24,930 lbs., tech., inv. 222, May 9, Contracting Officer, Patrick AFB, Fla.

Calcium carbide, 140,000 lbs. in 100-lb. dms., tech., inv. 7329-A, May 18, Panama Canal Co., Procurement Officer, Procurement Div., 21 West St., New York 6, N. Y.

Chemicals, 3,120 lbs. tech. soda lime, 14,300 lbs. potassium hydroxide, tech., East Coast, inv. 155-(1)-1478, May 9, 80,000 lbs. ammonium phosphate, dibasic, tech., 2,150 lbs. sodium carbonate, anhyd., ACS, white powd., 33,500 lbs. sodium bisulfate, monohydrate, tech., 2,000 lbs. ferric sodium oxalate, tech., East & West Coast, inv. 155-(1)-1493, May 10, Gen. Stores Supply Office, Navy Dept., 700 Robbins Ave., Phila. 11, Pa.

Dibutylphthalate, 50,000 lbs., inv. 114, May 21, Supply Officer, Navy Dept., Naval Powder Factory, Indian Head, Md.

Drugs, 576 bots. basic fuchsin, 10 gms., NF certified biological, 216 1-lb. cans bentonite, USP, 3,456 1-oz. bots. collodion USP, 864 bots. ethyl chloride, 100 gm. USP, 768 ¼-lb. bots. lead acetate, ACS, Somerville, N. J., Wilmington, Calif., Hines, Ill., inv. A-501-506, May 10, Vets. Adm., Procurement Div., Supply Service, Vets. Adm. Bldg., Washington 25, D. C.

Insecticide, 3,750 gals. DDT, liquid, inv. 577, May 9, Contracting Officer, McClellan AFB, Calif.

Magnesium sulfate, 35,000 lbs., USP, East & West Coast, inv. 155-(1)-1492, May 10, Gen. Stores Supply Office, Navy Dept., 700 Robbins Ave., Phila. 11, Pa.

Paint, 68,000 lbs. cuprous oxide, tech., Vallejo, Calif., inv. 1827, May 23, 10,072 gals. spraying acid resistant lacquer, Topeka AFB, inv. 1769, May 21, large quantity oil, striping paint, East & West Coast, inv. 1522, May 21, 252,000 lbs. magnesium silicate pigment, Vallejo, Calif., inv. 1679, May 18, 72,000 lbs. mica pigment, East & West Coast, inv. 1715, May 23, 5,000 gals. and 68,412 qts. cellulose nitrate, gloss lacquer, Topeka AFB, inv. 1636, May 16, 9,786 gals. general purpose, clear spraying lacquer, 5,300 gals. general purpose, pigmented, spraying lacquer, 996 qts. clear lacquer, for copper and brass, East & West Coast, inv. 1546, May 16, 27,396 qts. gloss, cellulose nitrate lacquer, Topeka AFB, inv. 1659, May 17, 905 gals. rubber base paint for concrete floors, 1,659 gals. heat resisting enamel, 11,508 gals. syn. gloss enamel, East & West Coast, inv. 1661, May 17, 400 gals. white enamel, 100 gals. outside paint, East & West Coast, inv. 1922, May 11, 412,000 lbs. dry color, red lead pigment, East & West Coast, inv. 1797, May 17, 60,000 gals. turpentine, East & West Coast, inv. 1691, May 17, Aviation Supply Office, Navy Dept., 700 Robbins Ave., Phila. 11, Pa.

Sodium hydroxide, 344,600 lbs., tech., for cleaning purposes, inv. CML-55, May 9, N.Y. Chem. Procurement District, 180 Varick St., N. Y., N. Y.

Sodium nitrite, 35,400 lbs., USP, inv. 155-(1)-1492, May 10, Gen. Stores Supply Office, Navy Dept., 700 Robbins Ave., Phila. 11, Pa.

Zinc phosphate, 30,000 lbs. solution, inv. 582, May 8, Contracting Officer, Frankford Arsenal, Phila., Pa.

Zinc stearate, 16,000 lbs., tech., East & West Coast, inv. 1790, May 21, Aviation Supply Office, Navy Dept., 700 Robbins Ave., Phila. 11, Pa.

Current Prices

—Continued from page 33

Zirconium acetate, 13% com., ZrO, c.l., 30,000 lbs. minimum, works	lb.	.23	—
Hydride, cns., works	lb.	7.60	8.45
Nitrate, dms., ex whse	lb.	4.50	7.00
Oxide, 92½-99%, white, grd., bbls. or bgs., works	lb.	1.50	—
lump, electric-fused, bgs., c.l., works	lb.	.44	—
5-ton lots, works	lb.	.44½	—
1 ton to 9,999-lb. lots, lbs., works	lb.	.45	—
CP, white, grd., bbls., or bgs., works	lb.	1.50	—
lump electric fused, bags, 500 to 1,999-lb. lots, works	lb.	.45½	—
smaller lots, works	lb.	.48	—
milled, electric-fused, bgs., c.l., works	lb.	.59	—
5-ton lots, works	lb.	.59½	—
1 ton to 9,999-lb. lots, works	lb.	.60	—
500 to 1,999-lb. lots, works	lb.	.60½	—
smaller lots, works	lb.	.63	—
Oxychloride, cryst., ctns., 5-ton lots, works	lb.	.35½	—

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Bromine, Dry. A powerful oxidizing and brominating agent used in manufacture of dyes, pharmaceuticals. Many applications in organic synthesis. Low moisture content of 30 ppm permits use in nickel and monel equipment. Very irritating to skin, eyes.

Bromodichloromethane. A clear, heavy, volatile liquid with a chloroform-like odor. Specific gravity 1.99; boiling point 90 degrees C. Soluble or miscible with many organic liquids. Used in organic synthesis. Adds to olefins under the influence of peroxide catalysts.

Bromotrichloromethane. A clear, colorless, heavy liquid with a chloroform-like odor. Specific gravity 2.0; boiling point 104 degrees C. Miscible with many organic liquids. Useful in organic synthesis, forming adducts with olefins with peroxide catalysts.

Chlorobromomethane "CB". A specially prepared pure, non-corrosive fire extinguishing fluid. Now finding increased use in factories, warehouses, homes. Clear, colorless, 2 degrees C. boiling range; complies with current military specifications. Used as solvent and in organic synthesis.

Cyclopentyl Bromide. A clear, colorless liquid with an aromatic odor. Specially prepared for use in organic synthesis, particularly for introduction of the cyclopentyl radical. Many potential uses in manufacture of pharmaceuticals. Purified grade, 2 degrees C. boiling range.

Dibromochloromethane. A clear, colorless, heavy liquid similar to bromodichloromethane. Used in organic synthesis, forming adducts with olefins under the influence of peroxide catalysts. Specific gravity 2.38; boiling point 116 degrees C.

β - Diethylaminoethyl Chloride Hydrochloride. $(CH_3CH_2)_2NCH_2CH_2Cl \cdot HCl$ (DEC). A granular solid. Specially suited for use as an intermediate in organic chemical manufacture, including antispasmodic agents and other pharmaceuticals.

β - Dimethylaminoethyl Chloride Hydrochloride. $(CH_3)_2NCH_2CH_2Cl \cdot HCl$. (DMC). A granular solid. Specially prepared for use in manufacture of antihistaminics and other pharmaceuticals. Other potential uses in organic synthesis. Relatively non-toxic in hydrochloride form.

β - Dimethylaminoisopropyl Chloride Hydrochloride. $(CH_3)_2NCH_2CHClCH_3 \cdot HCl$. (DMIC). An organic intermediate similar in appearance and properties to DEC and DMC. Specially prepared for manufacture of analgesics and other pharmaceuticals. Other potential uses in organic synthesis.

γ - Dimethylaminopropyl Chloride Hydrochloride. $(CH_3)_2NCH_2CH_2CH_2Cl \cdot HCl$. (DMPC). A white powder of singular purity. A versatile intermediate for pharmaceutical and organic syntheses, available exclusively from Michigan Chemical.

Ethyl Bromide. A clear, colorless, volatile liquid, specially prepared for use as an intermediate in organic synthesis. Practically free from impurities; has a narrow boiling range. Used in manufacture of dyes, perfumes and pharmaceuticals.

Hydrobromic Acid. A clear, colorless or light amber colored fuming liquid. Used for manufacture of inorganic metal bromides, aliphatic bromides, pharmaceuticals, dyes and intermediates. 48% acid and other strengths.

Magnesium Carbonate, Basic, Technical. Fine, uniform white powder, 325 mesh, bulk density 5.5 pounds per cubic foot. Very reactive. Used for rubber compounding, printing inks, paints, varnishes. Anti-caking agent for table salt; conditioning or bulking material for powder formulations.

Magnesium Hydroxide. Fine, white powder, typical assay 96.3%, low in moisture, iron, alumina, silica. Technical and NF IX grades. Special bulk densities available in NF grade. Convenient material for manufacture of light magnesias, other magnesium compounds.

Magnesium Oxides. Six principal grades of Michigan magnesium oxide with wide range of desirable physical and chemical characteristics covering principal uses of MgO, including rubber compounding, rayon manufacture, ceramics, glass, refractories, insulation.

Methyl Bromide. A heavy, colorless liquid, vaporizing at 40 degrees F., non-flammable and poisonous. Highly penetrating and insecticidally effective fumigant. Also used in organic synthesis for the introduction of the methyl group, especially in preparation of certain pharmaceutical chemicals.

Methylene Bromide. A clear, colorless liquid. Miscible with methyl alcohol, ether, chloroform and other organic liquids. A purified product with a 1.8 degrees C. boiling range. Specific gravity 2.47. Used in organic synthesis, as solvent and heavy gauge liquid.

Monobromobenzene. Clear, colorless, heavy liquid. Specially prepared for use as an intermediate in preparation of organic compounds. For introduction of the phenyl radical and in Grignard-type reactions. A pure material with a 4 degrees C. boiling range, specific gravity 1.495.

Phosphorous Tribromide. Brominating agent. A liquid, boiling point 173 degrees C., which fumes in contact with moist air. Used in synthetic work to convert alcohols to bromides, and acids to acyl bromides. Specially useful in preparation of bromides from alcohols without rearrangement.

Potassium Bromate, Granular. A fine, white, granular or crystalline material 99.5% pure. Decomposes at 370 degrees C. with evolution of oxygen. Strong oxidizing agent, used as an analytical reagent. Neutralizer in permanent wave compounds.

Potassium Bromate, Powder. A fine uniform powder with same properties as Granular. Available with added magnesium carbonate conditioning agent when specified. Suitable for use as an aging additive for flour.

Potassium Bromide, U.S.P. XIV. Pure, white granular powder. Low in chloride, passes all U.S.P. requirements. Widely used in the preparation of photographic emulsions, and in lithography. One of the most important sedatives. Available in several granulations.

Sodium Bromide, U.S.P. XIV. Pure, white crystalline powder or granules. Passes all requirements of the U.S. Pharmacopoeia. High assay; low in chloride. An important nerve sedative. Used in manufacture of other bromides. Contains about 77.5% bromine.

Trimethylene Chlorobromide. Clear, colorless liquid used in manufacture of anesthetic grade cyclopropane. Greater reactivity of bromine atom makes trimethylene chlorobromide specially useful also in preparation of gamma chloro compounds. Boiling range 2 degrees C. maximum.

Zinc Bromide Solution, Optical Grade. Clear, colorless solution, about 80% $ZnBr_2$. Used in laboratories dealing with radioactive chemicals as a radiation viewing shield; the most satisfactory material. Meets all chemical and optical specifications of Argonne National Laboratory.

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EASTERN SALES OFFICE: 230 Park Avenue, New York 17, New York

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C 55-2

BASIC MANUFACTURER OF INDUSTRIAL, PHARMACEUTICAL AND AGRICULTURAL CHEMICALS

IMPORTS at United States Ports

New York

AGAR—50 bls, S B Penick & Co, Kobe
25 bls, Consumers Import Co, Kobe
ALUM—450 bgs, C M C Chemicals Inc, Liverpool
ALUMINUM SULFATE—662 bgs, Philipp Bros Chemicals, Bremen
3-AMINO-1,2,4, TRIAZOLE — 120 dms, American Chemical Paint Co, Rotterdam
AMMONIUM BIFLUORIDE — 200 bgs, Interstate Chemical Corp, Bremen
CARBONATE—40 cs, American British Chemical Supplies, Glasgow
10 dms, American British Chemical Supplies, Glasgow
AMYRIS OIL—5 dms, Port au Prince
ANILINE DYES—4 cans, Wedeman & Godknecht, Hamburg
97 dms, Hensel Bruckmann & Lorbacher, Hamburg
15 dms, C A Haynes, Hamburg
23 dms, Sandoz Chemical Works, Havre
25 dms, Carbic Color & Chemical Co, Rotterdam
41 dms, Rotterdam
ANTIMONY REGULUS—200 cs, Holland Whitehall, Antwerp
50 cs, C Gitlan, Antwerp
ARABIC GUM—506 bgs, National City Bank, Port Sudan
400 bgs, Guaranty Trust Co, Port Sudan
250 bgs, Chase Manhattan Bank, Port Sudan
ARSENIOUS ACID—85 dms, Republic Chemical Corp, Marseille
ASCORBIC ACID—10 dms, Yokohama
BARIUM CHLORIDE—16 bgs, Naftone Inc, Rotterdam
BAY OIL—1 dm, Magnus Mabee & Reynard, Port of Spain
BEESWAX—182 bgs, Marine Midland Trust Co, Lisbon
196 bgs, Chase Manhattan Bank, Lisbon
300 bgs, Ermos International Corp, Porto Alegre
34 bgs, Curacao Trading Co, Ciudad Trujillo
18 bgs, H H Pike & Co, Havana
30 bgs, Ciudad Trujillo
119 bgs, H H Pike & Co, Tampico
59 bgs, Santiago
21 bgs, Vera Cruz
36 bgs, Havana
BENZOIN GUM—101 cs, Meer Corp, Singapore
BERGAMOT OIL—8 hf cs, Messina
BILE, OX—10 dms, Wilson & Co, Santos
2 dms, J M Rodgers & Co, Copenhagen
BIRCHTAR OIL—5 dms, Magnus Mabee & Reynard, London
BONE—100 ctns, Guaranty Trust Co, Yokohama
140 ctns, Guaranty Trust Co, Kobe
FLOUR—50 dms, Gallard Schlesinger, Liverpool
CADMIUM—100 cs, Merchants Service Co, Yokohama
107 cs, Yokohama
CALCIUM, PRECIPITATED—300 bgs, H J Baker & Bro, Liverpool
CAMPHOR OIL—20 dms, Dodge & Olcott, Keelung
10 dms, Orbis Products Corp, Keelung
CANDELILLA WAX—626 bgs, Tampico
CARAWAY SEED—100 bgs, Meer Corp, Rotterdam
100 bgs, Rotterdam
CARDAMOM—20 cs, Mincing Trading Corp, London
20 cs, Wm E Martin, Mangalore
40 cs, Karl H Landes & E Balint, Mangalore
CARNAUBA WAX—389 bgs, National City Bank, Fortaleza
335 bgs, Cornelius Wax Refining, Fortaleza
279 bgs, Wm Diehl & Co, Fortaleza
112 bgs, Strohmeyer & Arpe, Fortaleza
42 bgs, Diethelm & Keller Ltd, Fortaleza
934 bgs, S C Johnson & Co, Fortaleza
152 bgs, Mercantile Metal & Ore Corp, Fortaleza
112 bgs, J H Schroder, Fortaleza
56 bgs, Michael Hassel & Co, Fortaleza
167 bgs, Frank B Ross, Fortaleza
CASEIN—800 bgs, A J Mills & Co, Wellington
7,000 bgs, Borden Co, Buenos Aires
975 bgs, P A Dunkel, Buenos Aires
1,000 bgs, J R Spellacy, Melbourne
1,584 bgs, Buenos Aires
CASHEWNUT SHELL LIQUID—48 bbls, Marine Trust Co, Cochin
CASSIA—1,152 bls, Rotterdam
CASTOR BEANS—737 bgs, Spencer Kellogg, Port de Paix
640 bgs, Baker Castor Oil Co, Manta
OIL—300 tons, Wallace & Tiernan, Fortaleza
CETYL ALCOHOL—112 bgs, Orbis Products Corp, Liverpool
CHESTNUT EXTRACT—4,031 bgs, Barkey Importing Co, Genoa
4,000 bgs, Tanimex Corp, Bordeaux
CHLORINATED RUBBER—300 bgs, C M C Chemicals Inc, Liverpool
CINNAMON QUILLS—50 bls, Shippers Produce Corp, Colombo
50 bls, Meck & Co, Colombo
CITRONELLA OIL—9 dms, Calvert Vavasseur, Colombo
CLOVE—385 bgs, Chemical Bank, Djibouti
25 bgs, Djibonti
COALTAR DYES—4 cans, Hensel Bruckmann & Lorbacher, Rotterdam
8 dms, C A Haynes, Rotterdam
36 dms, Hensel Bruckmann & Lorbacher, Rotterdam
7 dms, Transmarine Shipping Co, Bremen
COCA LEAVES—125 bls, Maywood Chemical Works, Salaverry
COD OIL—64 dms, Arista Oil Products Co, Trondheim
340 dms, Chase Manhattan Bank, Leixoes
CODLIVER OIL—235 dms, National City Bank, Leixoes
COPAL GUM—503 bgs, Internatio Rotterdam, Matadi
417 bgs, Archer Daniels Midland Co, Matadi
662 bgs, O G Innes Corp, Matadi
64 bgs, S Winterbourne & Co, Singapore
84 bgs, O G Innes Corp, Singapore
COPPER CYANIDE—60 dms, Manufacturers Trust Co, Antwerp
CORIANDER OIL—2 cs, Delgo Aromatic Co, Antwerp
CORN STARCH—125 bgs, Rotterdam
COTTON LINTERS—249 bls, Williamson Northup Co, Cabedelo
m-CRESOL—108 dms, Koppers Co, Gothenburg
CRESYLIC ACID—367 dms, H A Gogarty, Liverpool
CUMIN SEED—361 bgs, Chase Manhattan Bank, Beirut
200 bgs, General Foreign Sales Corp, Khorramshahr
445 bgs, Beirut
CUTTLEFISH BONE—100 cs, S B Penick & Co, Yokohama
58 cs, M Baker, Bordeaux
84 cs, R T French Co, Takoradi
150 cs, Lisbon
250 cs, Marseille
DAMMAR GUM—50 cs, S Winterbourne & Co, Singapore
256 bgs, S Winterbourne & Co, Singapore
154 bgs, O G Innes Corp, Singapore
50 cs, Bangkok
DEXTRIN—385 bgs, Morningstar Nicol, Rotterdam
933 bgs, Guaranty Trust Co, Rotterdam
700 bgs, Paisley Products, Rotterdam
300 bgs, Rotterdam
EARTH COLORS—495 bgs, Naftone Inc, Rotterdam
2,475 bgs, Naftone Inc, Bremen
EUCALYPTUS EXTRACT—3,806 bgs, International Expediters, Fremantle
OIL—5 dms, Chase Manhattan Bank, Lisbon
FISHLIVER OIL—10 dms, Arista Oil Products Co, Yokohama
8 dms, Ponta Delgada
FUEL OIL—138,149 bbls, Asiatic Petroleum Corp, Curacao
228,976 bbls, Metropolitan Petroleum Corp, Punta Cardon
239,083 bbls, Esso Standard Oil Co, Aruba
171,000 bbls, Esso Export Corp, Aruba
130,682 bbls, Paragon Oil Co, Punta Cardon
89,800 bbls, American Oil Co, Aruba
GALL—4 cks, Wilson & Co, Napier
OX—6 dms, Merck & Co, Santos
3 dms, Van Gelder Fanto Corp, Sydney
GALLNUTS—194 bgs, Balfour Guthrie, Lattakia
GELATIN—100 bgs, Cudary Packing Co, Hamburg
100 bgs, Hensel Bruckmann & Lorbacher, Rotterdam
50 bgs, T M Duche & Sons, Rotterdam
300 bgs, Transatlantic Animal By-Products Corp, Rotterdam
GERANIUM OIL—2 dms, Ufinindo International Corp, Djibouti
GINGER—156 bgs, Murwal Inc, Lagos
ROOT—199 bgs, Becker Mayer Seed Co, Lagos
GLUE, FISH—4 bbls, Harry Dixon & Sons, Trondheim
GRAPHITE—1,368 bgs, Asbury Graphite Mills, Trondheim
34 dms, Wedeman & Godknecht, Rotterdam
250 bgs, Asbury Graphite Mills, Colombo
600 bgs, Asbury Graphite Mills, Bremen
GYPSUM—3,383 tons, Allied Chemical & Dye Co, Halifax
18,235 tons, U S Gypsum Co, Hantsport
HAARLEM OIL—15 cs, Rotterdam
HOOF, HORN MEAL—1,088 bgs, Ossa Products Corp, Buenos Aires
IODINE, CRUDE—60 kgs, National City Bank, Yokohama
360 kgs, N American Fertilizer & Chemical Co, Yokohama
IRANIAN GUM—50 bgs, S B Penick & Co, Rotterdam
IRON BLUE—17 dms, Van Oppen & Co, Liverpool
JALAP ROOT—15 bgs, Vera Cruz
KAURI GUM—32 bgs, Archer Daniels Midland Co, Auckland
KELPMEAL — 10 bgs, J D Smith Interocean, Trondjheim
LABDANUM OIL—1 dm, American Aromatics Inc, Barcelona
LACTOSE—96 dms, Empire Trust Co, Rotterdam
LAURIC ACID—150 dms, I R Boody, Copenhagen
LEMON OIL—20 hf cs, Citrus & Allied Essential Oil Co, Messina
8 dms, C T Wilson Co, Coatzaoa
LEMONGRASS OIL—11 dms, Van Ameringen Habler, Cochin
6 dms, Chemical Bank, Cochin
4 dms, Maywood Chemical Works, Matadi
4 dms, C Gitlan, Matadi
LIME OIL—2 dms, Citrus & Allied Essential Oil Co, Puerto Plata
LITHARGE—250 dms, Eagle Picher Co, Tampico
LIVER CONCENTRATE—17 dms, Wilson & Co, Buenos Aires
LOCUST BEAN GUM—100 bgs, T M Duche & Sons, Genoa
200 bgs, Haberland Manufacturing Co, Genoa
304 bgs, Stein Hall & Co, Genoa
400 bgs, Morningstar Nicol, Genoa
800 bgs, Morningstar Nicol, Portimao
1,100 bgs, Morningstar Nicol, Piraeus
30 dms, Uni Gum Corp, Rotterdam
70 bgs, Heemsoth Kerner, Rotterdam
322 bgs, Brown Bros, Lisbon
MAGNESITE—1,815 bgs, Golwynne Chemical Corp, Cochin
330 bgs, Smith Chemical & Color Co, Rotterdam
MAGNESIUM CARBONATE—200 bgs, Reheis Co, Liverpool
MALONIC ACID—1 ck, Interstate Chemical Corp, Bremen
MARINE OIL COMPOUND—400 bgs, Chemical Bank, Oslo
MARJORAM—153 bls, M J Golombeck, Marseille
83 bgs, Callao
MENTHOL—25 cs, Schwabach & Co, Santos
10 cs, Magnus Mabee & Reynard, Kobe
MERCURY—89 flks, L H Keller & Co, Tampico
100 flks, Hanover Bank, Tampico
500 flks, Hanover Bank, Leghorn
10 flks, Derby & Co, Izmir
75 flks, Vera Cruz
1,050 flks, Cadiz
MUSTARD SEED—225 bgs, Berns & Koppstein, Copenhagen
MYSOLINE—6 dms, Ayerst Lab, Liverpool
NAPHTHALENE—542 bgs, Rotterdam
NAPHTHENIC ACID—1,820 bbls, Esso Standard Oil Co, Aruba
NAPHTHOL—6 dms, Hensel Bruckmann & Lorbacher, Rotterdam
4 dms, Heemsoth Kerner, Hamburg
2 dms, Hensel Bruckmann & Lorbacher, Hamburg
NICKEL CHLORIDE—10 bbls, D Hauser, Bremen
SULFATE—334 bbls, American Firstoline Corp, Hanko
40 bbls, Hamburg
NIGER SEED—1,000 bgs, Chemical Bank, Massawa
NUTMEG—98 bgs, Karl H Landes & E Balint, Singapore
250 bgs, Borneo Sumatra Trading Co, Singapore
75 bgs, Mincing Trading Corp, London
42 bgs, Internatio Rotterdam, Singapore
125 bgs, Rotterdam
OITICICA OIL—180 tons, Brazilian Industrial Oils, Fortaleza
OLIBANUM GUM—67 bgs, Irving Trust Co, Massawa
OLIVE OIL—250 dms, Grace National Bank, Tarragona
60 dms, First National Chicago, Barcelona
326 dms, National Bank Detroit, Barcelona
100 dms, Credit Suisse, Barcelona
1,254 dms, George Temple, Cadiz
2,012 dms, Midwestern Mdse Co, Cadiz
1,040 dms, Lo Curto & Funk, Cadiz
1,020 dms, Berolio Import & Co, Cadiz
2,157 dms, National City Bank, Malaga
100 dms, J H Schroder, Malaga
100 dms, Manufacturers Trust Co, Malaga
97 dms, Irving Trust Co, Malaga
204 dms, Atlantic Bank of N Y, Malaga
633 dms, Hanover Bank, Malaga
346 dms, Brown Bros, Malaga
262 dms, National Shawmut Bank Boston, Malaga
788 dms, Credit Suisse, Malaga
3,087 dms, Bank of America, Malaga
7 dms, Chase Manhattan Bank, Barcelona
135 dms, National City Bank, Barcelona
603 dms, Atlantic Bank of N Y, Barcelona
25 dms, A N Cory, Barcelona
15 dms, Phila National Bank, Barcelona
551 dms, Manufacturers Trust Co, Barcelona
100 dms, First National Boston, Barcelona
200 dms, J H Schroder, Barcelona
2,138 dms, National City Bank, Seville
6,158 dms, Guaranty Trust Co, Seville
1,050 dms, Credit Swisse, Seville
652 dms, Bankers Trust Co, Seville
200 dms, Manufacturers Trust Co, Seville
1,050 dms, Hanover Bank, Seville
100 dms, N Y Trust Co, Seville
527 dms, Chemical Bank, Seville
1,312 dms, Brown Bros, Seville
512 dms, J H Schroder, Seville
500 dms, Grace National Bank, Seville
50 dms, Atlantic Bank of N Y, Seville
520 dms, Geotrade Industrial Corp, Cadiz
520 dms, Leghorn Trading Co, Cadiz
210 dms, Credit Swisse, Cadiz
944 dms, Cadiz
3,155 dms, Malaga
676 dms, Barcelona
1,599 dms, Seville
ORANGE OIL—1 dm, Citrus & Allied Essential Oil Co, Puerto Plata
OURICURY WAX—56 bgs, M Arguesso & Co, Salvador
56 bgs, Strohmeyer & Arpe, Salvador
34 bgs, National City Bank, Rijeka
244 bgs, Chase Manhattan Bank, Rijeka
PALM OIL—1,185 tons, Balfour Guthrie, Boma
203 tons, Balfour Guthrie, Matadi
75 dms, Matadi
PALMKERNEL OIL—199 tons, Durkee Famous Foods, Matadi
306 tons, Matadi
PALO SANTO ESSENCE—68 cs, Irving Trust Co, Buenos Aires
PAPAIN—51 cs, Chas L Huisking & Co, Colombo
31 cs, Colombo
PATCHOULI OIL—4 dms, Antoine Chiris, Penang
PEATMOSS—725 bls, New Amsterdam Import Co, Bremen
700 bls, E Dunwoody, Bremen
495 bls, Lion Trading Co, Bremen
250 bls, Vuyk Van Nes Nurseries, Bremen
500 bls, E J Lang, Bremen
500 bls, Bruco Peatmoss Corp, Bremen
1,000 bls, Marine Midland Trust Co, Bremen
450 bls, Halfmoon Manufacturing & Trading Co, Rotterdam
2,000 bls, E J Lang, Rotterdam
1,270 bls, C Gastmeyer, Rotterdam
2,700 bls, Premier Peatmoss Corp, Bremen
2,645 bls, J E Bernard, Hamburg
1,150 bls, Lion Trading Co, Hamburg
500 bls, C Fafard, Bremen
500 bls, C Fafard, Hamburg
500 bls, Lewis Intern Co, Hamburg
500 bls, Bremen
PEPPER, BLACK—160 bgs, Lo Curto & Funk, Cochin
160 bgs, A G Dunn, Cochin
160 bgs, Virchand Panachand, Cochin
160 bgs, Mincing Trading Corp, Cochin
80 bgs, Irving Trust Co, Cochin
240 bgs, Far Eastern Rubber Importers, Singapore
140 bgs, E H Simpson & Co, Singapore
140 bgs, A G Dunn, Singapore
100 bgs, Borneo Sumatra Trading Co, Singapore
140 bgs, East India Trading Co, Singapore
345 bgs, Internatio Rotterdam, Singapore
70 bgs, C Czarinkow, Singapore
210 bgs, Ludwig Mueller, Singapore
320 bgs, Mincing Trading Corp, Colombo
80 bgs, A C Israel, Colombo
160 bgs, East India Trading Co, Colombo
480 bgs, Alleppey
72 bgs, Singapore
80 bgs, Colombo
WHITE—70 bgs, A G Dunn, Singapore
70 bgs, Polak Trading Co, Singapore
40 bgs, E H Simpson & Co, Singapore
PETITGRAIN OIL—50 cs, National City Bank, Buenos Aires
24 dms, First National Boston, Buenos Aires
50 cs, John D Walsh Co, Buenos Aires
PETROLEUM, CRUDE—201,670 bbls, Esso Standard Oil Co, Puerto La Cruz
209,948 bbls, Hess Inc, Las Piedras
148,703 bbls, Socony Mobil Oil Co, Puerto La Cruz
106,873 bbls, Gulf Oil Corp, Caripito
194,536 bbls, Phillips Petroleum Co, Co, Puerto La Cruz
159,025 bbls, Gulf Oil Corp, Las Piedras
a-PICOLINE—48 dms, H A Gogarty, Liverpool
PINENEEDLE OIL—8 dms, W J Byrnes, Antwerp
5 dms, Centflor Manufacturing Co, Hamburg
PIPERAZINE HEXAHYDRATE—5 dms, E R Squibb & Sons, Liverpool
POLLACKLIVER OIL—150 dms, National City Bank, Yokohama
POPPY SEED—300 bgs, Becker Mayer Seed Co, Buenos Aires
200 bgs, Transit Import & Export Co, Buenos Aires
498 bgs, Louis Furth, Buenos Aires
300 bgs, Rotterdam
POTASSIUM SILICATE—907 bgs, Sylvania Electric Products, Rotterdam
PRUSSIAN BLUE—6 dms, Tar Residuals Inc, Rotterdam
PYRITES—274 cks, American Metal Co, Leixoes
QUEBRACHO EXTRACT—2,028 bgs, American Tanners Ltd, Buenos Aires
1,164 bgs, River Plate Corp, Buenos Aires
4,833 bgs, First National Boston, Buenos Aires
6,100 bgs, International Products Corp, Buenos Aires
RAPE SEED—100 bgs, Foreign & Domestic Sales Corp, Rotterdam
RAUWOLFIA ROOT—465 bgs, Select Trading Co, Matadi
600 bgs, Matadi
RICE STARCH—100 bgs, Morningstar Nicol, Antwerp
80 bgs, Morningstar Nicol, Bremen
80 bgs, Stein Hall & Co, Bremen
134 bgs, American Key Products, Trieste
ROSEMARY—5 bbls, Naples
ROSEWOOD OIL—4 dms, Van Ameringen Haebler, Callao
RUTILE SAND—2,600 bgs, International Titanium Corp, Brisbane
2,300 bgs, Lo Curto & Funk, Brisbane
SAGE OIL—3 dms, P H Petry, London
SAGO FLOUR—577 bgs, Chartered Bank of India, Singapore
56 bgs, Singapore
SEAWEED EXTRACT—15 cks, National City Bank, Hamburg
SEEDLAC—250 bgs, Ralli Bros, Bangkok
250 bgs, Haeuser Shellac Co, Bangkok
250 bgs, United Shellac Corp, Bangkok
1,000 bgs, Irving Trust Co, Bangkok
750 bgs, East Asiatic Co, Bangkok
250 bgs, C H Timm, Bangkok
500 bgs, Bangkok
SENNA CONCENTRATE—20 cs, L Goldburt, London
SESAME SEED—336 bgs, Archibald & Kendall, Puerto Barrios
448 bgs, Puerto Barrios
SIENNA EARTH—14 bbls, Leghorn
SHELLAC—70 bgs, Dings & Schuster, Bremen
SOAP BARK—303 bls, S B Penick & Co, Valparaiso
181 bls, S B Penick & Co, San Antonio
SODIUM BICARBONATE — 1,000 bgs, Chemicar Manufacturing Co, Liverpool
CYANIDE—628 dms, Chemical Manufacturing Co, Liverpool
FLUORIDE—100 dms, Lo Curto & Funk, Liverpool
NITRITE — 111 dms, Standard International Corp, Hamburg
SALT OF DEHYDROACETIC ACID—10 dms, F L Kraemer, Hamburg
SILICOFLUORIDE — 200 cs, Mercer Chemical Corp, Yokohama
561 bgs, Philipp Bros, Chemicals, Kobe
500 bgs, W J Byrnes, London
52 cks, W J Byrnes, Hamburg
STARCH—10 bgs, D C Andrews, London
SUMAC—136 bgs, River Plate Corp, Palermo
TALC—800 bgs, C B Chrystal Co, Bordeaux
400 bgs, Hammil & Gillespie, Bordeaux
1,050 bgs, Charles Mathieu, Genoa
TAPIOCA FLOUR—600 bgs, American Metagraph Co, Santos
2,000 bgs, Borneo Sumatra Trading Co, Bangkok
3,859 bgs, American Key Products, Bangkok
3,605 bgs, Stein Hall & Co, Bangkok
960 bgs, Geismar & Co, Bangkok
360 bgs, Internatio Rotterdam, Bangkok
TARA SEED—125 bgs, Salaverry
THYME LEAVES—155 bls, Louis Furth, Marseille
THYROID POWDER—4 dms, Industrial Chemical & Dye Co, Hamburg
TRICHLOROETHYLENE—50 dms, Chemical Manufacturing Co, Liverpool
TURMERIC—160 bgs, Chase Manhattan Bank, Alleppey
160 bgs, First National Boston, Alleppey
480 bgs, Alleppey
UREA—1,200 bgs, Nylos Trading Co, Genoa
VARNISH—5 dms, J E Bernard, London
VEGETABLE WAX—50 cs, Strohmeyer & Arpe, Kobe
WAX—66 bgs, Strohmeyer & Arpe, Rotterdam
5 dms, Dura Commodities Corp, Bremen
202 bgs, Dura Commaodities Corp, Bremen
WHITING—1,800 bgs, Antwerp
WOOL GREASE—82 dms, W L Montgomery, Fremantle
82 dms, Robeco Chemicals, Fremantle
53 dms, Ovimpex Inc, Fremantle
15 dms, International Packers Ltd, Brisbane
50 dms, N I Malmstrom, Manchester
45 dms, Fanning Chemical Corp, Nagoya
WAX—6 cs, Olympic Shipping Co, Liverpool
YACCA GUM—230 bgs, Commercial Bank of Australia, Adelaide
ZINC OXIDE—200 bgs, Genoa
SULFIDE—1,200 bgs, C J Osborn Co, Rotterdam
ZIRCON SAND—2,400 bgs, International Titanium Corp, Brisbane

Baltimore

CUTTLEFISH BONE—55 cs, Wm G Scarlett, Portimao
EARTH COLORS—791 bgs, American Chemical & Pigment Corp, Rotterdam
2,250 bgs, American Chemical & Pigment Corp, Bremen
LITHARGE—67 dms, Tampico
OLIVE OIL—740 dms, National City Bank, Seville
505 dms, First National Baltimore, Seville
PEATMOSS—400 bls, New Amsterdam Import Co, Bremen
445 bls, Premier Peatmoss Corp, Bremen
TAPIOCA FLOUR—540 bgs, Geismar & Co, Bangkok

Boston

OLIVE OIL—103 dms, First National Boston, Barcelona
273 dms, National Shawmut Bank, Barcelona
200 dms, Guaranty Trust Co, Seville

Los Angeles

AGAR—22 cs, Pan Asiatic Trading Co, Yokohama
CALCIUM NITRATE—16,000 bgs, Carnegie Chemical Manufacturing Co, Bremerhaven
CELERY SEED—87 bgs, Hismoco American Co, Bombay
COPRA—1,000 long tons, American Trust Co, Tacloban
CAKE—2,240 bgs, Atkins Kroll & Co, Zamboanga
6,000 bgs, American Trust Co, Cebu
100 long tons, Balfour Guthrie & Co, Ltd, Cebu
300 long tons, The Procter & Gamble Co, Cebu

—Continued on page 69

COPRA CAKE—248.78 long tons, The Procter & Gamble Co, Nasipit
500 long tons, The Procter & Gamble Co, Dumaguete
FISHMEAL—2,174 bgs, Wessel Duval, Mellendo
1,090 bgs, Wessel Duval, Callao
PEPPER, RED—200 bgs, M S Cowen Co, Bangkok
100 bgs, Consolidated Foods Corp, Nagoya
200 bgs, S L Jones & Co, Kobe
250 bgs, Cal-Compack Foods Inc, Kobe
PETROLEUM, CRUDE—29,302 long tons, Union Oil Co of Calif, Puerto La Cruz
29,052 long tons, General Petroleum Corp, Puerto La Cruz
21,033 net tons, The Texas Co, Las Piedras
16,176 long tons, The Texas Co, Puerto La Cruz

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• LITHIUM ALUMINUM HYDRIDE
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575 bgs, East Asiatic Co Inc, Bangkok
SHELLAC—130 bgs, Calcutta
TRICHLOROETHYLENE — 250 dms, Miny Corp, Venice

Philadelphia

AGAR—50 cs, T M Duche & Sons, Nagoya
ANTIMONY—60 cs, Trotter Co, Middlesbrough
OXIDE—200 bgs, C Gitlan, Antwerp
BONE—6,546 bgs, Swiss Credit Bank, Buenos Aires
CRESYLIC ACID—200 dms, Glasgow
FISHLIVER OIL—100 dms, Arista Oil Products Co, Yokohama
FLUORSPAR—1,030 tons, Penna Salt Corp, Huelva
FUEL OIL—127,000 bbls, Esso Standard Oil Co, Aruba
GYPSUM—10,290 tons, U S Gypsum Co, Hantsport
5,233 tons, U S Gypsum Co, Little Narrows
MAGNESITE—867 tons, Split
MINERAL WAX—363 bgs, Rotterdam
MOLASSES—5,675,823 gals, Preston
NAPHTHALENE—556 bgs, Gallard Schlesinger, Antwerp
1,437 bgs, Antwerp
3,614 bgs, Rotterdam
OLIVE OIL—380 dms, Guaranty Trust Co, Seville
PEATMOSS—203 bls, Shute Co, Copenhagen
2,840 bls, Premier Peatmoss Corp, Copenhagen
1,000 bls, New Amsterdam Import Co, Bremen
650 bls, Policastro & Son, Bremen
250 bls, Cultura Co, Hamburg
320 bls, Penna Co for Banking, Hamburg
500 bls, Keer Maurer, Bremen
1,525 bls, Keer Maurer, Bremerhaven
1,825 bls, Premier Peatmoss Corp, Bremerhaven
2,220 bls, Van Zanten & Co, Bremen
500 bls, E J Lang, Bremen
1,000 bls, E Dunwoody, Bremen
700 bls, Premier Peatmoss Corp, Bremen
1,500 bls, Keer Maurer, Bremen
PETROLEUM, CRUDE—62,743 bbls, Atlantic Refining Co, La Salina
43,987 bbls, Atlantic Refining Co, Las Piedras
123,027 bbls, Atlantic Refining Co, Puerto La Cruz
131,114 bbls, The Texas Co, Pamatacual
114,794 bbls, The Texas Co, Las Piedras
154,754 bbls, The Texas Co, Sidon
524,832 bbls, Gulf Oil Corp, Puerto La Cruz
126,782 bbls, Socony Mobil Oil Co, Covenas
POTASSIUM MURIATE—888 tons, Potash Import Co, Antwerp
QUEBRACHO EXTRACT—736 bgs, First National Boston, Buenos Aires
SODIUM NITRATE—2,972 tons, Guaranty Trust Co, Tocopilla
SILICOFLUORIDE — 250 bgs, Kohnstomom Co, Rotterdam
TARA POWDER—256 bgs, Callao
UREA—4,000 bgs, Chemical Manufacturing Co, Middlesbrough

San Francisco

AMMONIUM NITRATE — 30,233 bgs, Carnegie Chemical Co, Bremerhaven
CALCIUM NITRATE—30,020 bgs, Carnegie Chemical Co, Bremerhaven
CASSIA—180 pkgs, Rotterdam
CINNAMON QUILLS—25 bls, Colombo
COPPER CYANIDE—10 dms, Chemical Manufacturing Co, Middlesbrough
CUMIN SEED—320 bgs, Rotterdam
185 bgs, Khorramshahr
DEXTRIN—224 bgs, Spence Sales Co, London
GELATIN—27 bbls, Coignet Chemical Co, Antwerp
GINGER—80 bgs, Ziel & Co, Alleppey
56 bgs, Mincing Trading Corp, Kingston
12 bgs, Spice Island Co, Kingston
LOCUST BEAN GUM—200 bgs, Stein Hall & Co, Rotterdam
PEATMOSS—600 bls, Lastreto Phillips, Rotterdam
PEPPER, BLACK—160 bgs, Mincing Trading Corp, Cochin
PETROLEUM, CRUDE—327,874 bbls, Standard Oil Co, Sungai Pakning
120,000 bbls, Tidewater Associated Oil Co, Vancouver
147,294 bbls, Tidewater Associated Oil Co, Sungai Pakning
POLLACKLIVER OIL—150 dms, Wheeler & Miller, Yokohama
POPPY SEED—50 bgs, McClintock Stern Co, Rotterdam
50 bgs, B C Ireland, Amsterdam
POTASSIUM CYANIDE—10 dms, Chemical Manufacturing Co, Middlesbrough
ROSEMARY LEAVES—100 bls, H M Newhall & Co, Rotterdam
SESAME SEED—100 bgs, Grace & Co, Corinto
SODIUM CYANIDE—50 dms, Chemical Manufacturing Co, Middlesbrough
268 dms, C M C Chemicals, London
THYME LEAVES—38 bls, Hismoco American Co, Marseille
TRICHLOROETHYLENE—50 dms, N Y Hanseatic Corp, Rotterdam
VANILLA BEANS—9 cs, Williams Dimond, Papeete
2 cs, American Trust Co, Papeete
WHITING—2,000 bgs, Antwerp
WOOL GREASE—200 dms, Bankers Trust Co, Middlesbrough
ZINC CYANIDE—5 dms, Chemical Manufacturing Co, Middlesbrough

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GHATTI
GUAR
KARAYA (INDIAN)
LOCUST (CAROB FLOUR)
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MENTHOL (NATURAL CRYSTALS)
JAPAN WAX
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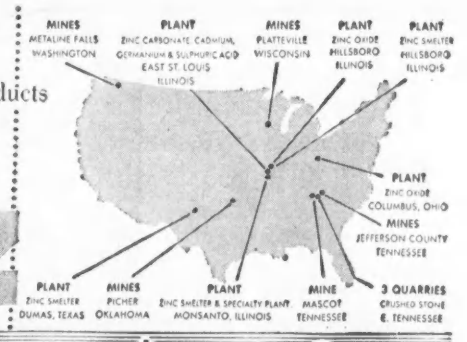
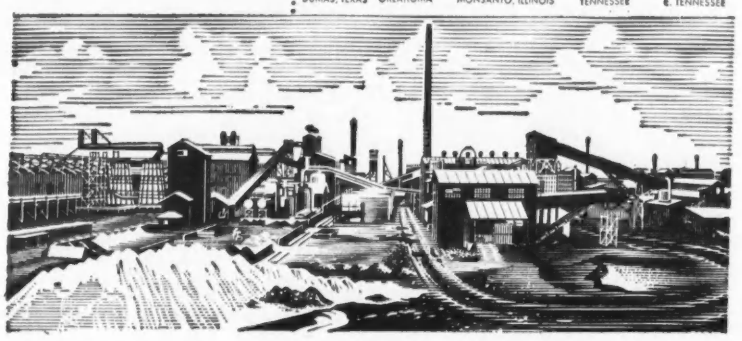
American Zinc and its products from A to Z





FAIRMONT CITY, ILLINOIS
(East St. Louis)

Operations include: roasting and sintering of zinc concentrates; cadmium plant producing commercial balls, sticks and plates; zinc carbonate plant; germanium plant producing germanium dioxide for the electronics industry. Sulphuric acid is produced by both the Chamber and Contact methods. For complete picture of American Zinc operations, see map above.

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Coatings Materials

Orange shellac slipped 2 cents per pound last week, bringing to 4 cents per pound the total decline for the past three weeks. A long supply situation coupled with a reduction in demand is said to be causing the price easiness. Dealers are hoping to see a more favorable market as soon as the slack in supplies is taken up. Gum prices were reported firm in an active market, with business centered on immediate requirements. No price changes in gum have been posted since the week before last, when Singapore No. 2 firmed 1 cent to 30 cents to 31 cents per pound, and Manila DBB dropped 2 cents to 29 cents to 31 cents per pound.

With the price of copper easing, dealers are expecting a corresponding reduction in copper oxides. But this is not a certainty, since during the last year, oxide prices have not always followed closely the price of copper. Markets for lead and zinc pigments continued relatively slow. According to one source, the sales decline is due to an easier price situation in the respective metals, leading consumers to expect a possible price reduction.

The backlog of orders for cadmium selenide lithopones has diminished lately, dealers report, due to competition from the cheaper and more plentiful mercury lithopones. However, the pigments are still in short supply, with shipments booked about 45 days in advance.

Prices of plasticizers held steady against reduced demand. As this is generally not a slow season for plasticizers, an explanation of the sales lag is not readily apparent. According to one observer, the higher cost of credit (reflected by Federal Reserve Bank policies) is causing consumers to reduce their inventories.

The price decline which began last February in Argentine casein has persisted with only intermittent steadiness. Last week, dealers posted a ½ cent reduction, bringing the material down to 21½ cents to 22 cents per pound. Although this represents a total price decline of 14½ cents per pound since the high was reached in January, the level of business is still low, with consumers continuing to use soya protein as a substitute. It is generally felt though, that the price will soon reach a level that will bring buyers back to the market.

Price Trends

Advanced
None

Reduced
Casein, Arg., ½c. per lb.
Shellac, orange grades, 2c. per lb.

Comparative Price Indexes
(100—1949 average)

Last week	Prev. week	Last month	May 6, 1955
100.14	100.14	100.15	97.12

For Current Prices see Page 9

Carbon Black — Production of carbon black in March was 159,000,000 pounds, an increase of approximately 10,000,000 pounds over February. Shipments of furnace black increased by about 4,000,000 pounds while contact black shipments were down 1,000,000 pounds.

The following figures, in thousands of pounds, indicate production, shipments, stocks and exports of carbon black for March 1956, with figures for February, 1956, and March, 1955, reported for comparison.

Production

	Furnace	Contact	Total
March, 1956	127,448	31,552	159,000
February, 1956	120,406	28,717	149,123
March, 1955	112,206	30,750	142,956

Shipments

March, 1956	117,317	30,377	147,694
February, 1956	113,037	31,548	144,585
March, 1955	119,438	42,107	161,545

Stocks

March, 1956	153,787	93,638	247,425
February, 1956	143,656	92,463	236,119
March, 1955	113,932	153,180	267,112

Exports

March, 1956	*	*	*
February, 1956	24,725	15,097	39,882
March, 1955	23,392	19,083	42,475

*Not available.

Copper Oxide—With the price of copper down, dealers are expecting a corresponding reduction in copper oxides. It has been noted though that in the last year the price of oxides has not always followed the price of copper closely. Hence a price revision at present is not a certainty.

The sales pace was reported to be seasonally moderate, although the paint industry is in the market right now with fairly heavy buying. Other industries are said to be buying only lightly during the spring season. Sufficient quantities of material are available, it was reported, for all consumer requirements.

Lead Pigments—This market continued its second week of relative slowness. It was noted that consumers are maintaining low inventories, possibly because a price reduction is being anticipated in some quarters as a result of softness in the lead market. Normally, lead pigment buying is a little more active at this time of the year. Ample supplies are available.

Methyl Violet Toner—As reported here previously, this pigment has been advanced 5c. per pound to offset increases in the cost of production. Buying interest was reported seasonally good, and well balanced with supplies.

Titanium Dioxide—Like cadmium colors, this material has continued in a very tight position. Consumers are obliged to place their orders well in advance of the date when the material is needed, in order to assure prompt delivery. Occasionally some allocation has been necessary.

Zinc Pigments—The pace of business has slowed down in this market during the last two weeks. According to one source, the sales decline is due to an easier price situation in zinc, which has led consumers to expect a possible price reduction. This, however, is only one conjecture. Another source believes that a more cautious inventory level is being maintained because of the forthcoming national election. Despite the sales drop, producer inventories have not become dangerously long; in fact, fairly good balance continues to characterize the market.

Synthetic Resins

Alkyds — Prices range 19-20½c. per pound for quantities of 1-9 drums. Tankcar prices are 16-17½c. per pound. These quotations represent a 1½c. per pound advance posted April 2 by a major producer.

Phenolics—Quantities of 1-9 drums are quoted at 22½-23½c. per pound. Tankcar prices range 21¼-22c. per pound. The sales pace is seasonally good, with supply and demand in balance.

Polystyrene—A 5c. price increase was posted recently by a major supplier to offset higher production costs. The material was reported moving well at the advanced price. Supplies are sufficient for present market needs.

Prime Pigments

Aluminum Paste, Powder—Routine buying interest was shown in this pigment last week. Prices continue firm at the following quotations:—Paste, extra fine, 66½c. per pound; paste, standard grade, 46½c. per pound; powder, extra fine, $1.07 per pound; and powder, standard grade, 76½c. per pound.

Antimony Oxide—Sales moved at a routine pace, with prices holding firm at 27c. per pound for carlots and 28½c. per pound for less carlots. Supplies appear sufficient for all consumer requirements.

Cadmium Colors—The backlog of orders for this scarce line of pigments has been reduced somewhat due to competition from the cheaper and more plentiful mercury lithopones. Nevertheless, delivery dates are still running about 45 days behind order dates. While demand may be expected to diminish further as the mercury pigments become more popular, no letup in the scarcity of selenium is foreseen, since the government will continue to absorb most of it for munitions production.

Lacquer Materials

Dibutyl Phthalate — Quotations have held steady at 32c. per pound for carlots,

Coatings Materials

33c. per pound for less carlots, and 30c. per pound for tanks. The slower sales pace reported last week has continued. Supplies appeared sufficient for current requirements.

Dibutyl Sebacate—This plasticizer was unchanged at 66c. per pound for drums in carlots. Drums in less carlots are 66½c. to 67c. per pound, and tanks are 64c. to 64½c. per pound. Along with other plasticizers, dibutyl sebacate has moved slower against quieter demand during the last two weeks.

Diethyl Phthalate—Although the price of alcohols was moved up early in the year, quotations on diethyl phthalate have held steady. The spot price is likely to remain unchanged during the present contract quarter, since phthallic anhydride and other basic materials are steady and in good supply.

Dimethyl Sebacate — Quotations were reported steady at $1.27 per pound for drums in carlots; $1.28 for drums in less carlots; and $1.25 for tanks.

Dioctyl Adipate — Prices have held steady and unchanged against reduced demand. This is generally not a slow season for plasticizers; so market sources are perplexed by the present lag. According to one observer, the higher cost of credit (reflected by Federal Reserve Bank policies) is causing consumers to reduce their inventories.

Tricresyl Phosphate — The last change in this material was a 1½c. advance posted January 1, an increase brought about by a hike in the cost of cresylic acid. So far this year, TCP is the only plasticizer that has been advanced in price. Last week's business was reported still slow.

Naval Stores

Rosin, Gum

(USDA, per 100 lbs.)

	Fri. Apr. 27	Mon. Apr. 30	Tues. May 1	Wed. May 2	Thur. May 3
Drums—					
G	...	$8.13	...	...	...
K	...	8.13	$8.15	...	...
M	...	8.15	8.24§	...	...
WG	$8.55	...	8.45	...	...
WW	...	8.61§	8.60§	...	...
Bags—					
G	...	8.10	8.08	...	...
M	...	...	8.20	...	...
N	...	8.15	...	...	...
WW	...	...	8.45	...	...
Tankcars (for week ended Apr. 27)— M or better, $7.90; K or better, $7.855§					
Sales, USDA	80*	743*	977*	...	527*

New York
(per 100 lbs., c.l., Friday)
B through N, $9.40; WG, $9.55; WW, $9.65

Turpentine, Gum

(USDA, per gal., 7.2 lbs.)

Price	.555	.557§	.554§	.557§	...
Sales	12,000¶	34,046¶	40,000¶	4,000¶	...

New York, Friday, per gal. 7 lbs., tankcars, 63½c., l.c.l. 75c.

*Drums equivalent. ¶Gallons. §Average price.

Miscellaneous

Casein—The price retreat which began last February has continued with only intermittent steadiness. Last week saw a further decline of ½c. per pound, bringing the material down to 21½-22c. per pound. Although this represents a total decline of 14½c. per pound since the price reached a high of 36c. in January, the level of business is still relatively low, with consumers continuing to use soya protein as a substitute. In this connection an observer remarked that it is always easier to lose customers than to win them back. It is generally felt though, that Argentine casein will soon reach a level where it can attract consumers away from the substitute.

Shipments of French casein to this country are still light, possibly because producers are finding it difficult to compete with the Argentine price. But, since accurate estimates of French production are not available, it is possible that supplies there may not be particularly plentiful.

Natural Resins

Copal Gum—The market has remained generally active, but sales levels continue to dip and soar, indicating that most buying is for immediate requirements. The last price change reported was a 2c. drop in Manila DBB posted the week before last. At last reports all prices were steady to firm.

The differential in price between Indonesian and Philippine grades has continued in effect, and as a result, most dealers are stocking only nominal quantities of the former.

Dammar Gum—Prices were firm in an active market, with buying interest centered on immediate requirements. No price changes have been scored since the week before last, when Singapore No. 2 firmed 1c. to 30-31c. per pound. Shipments of material from the Far East have been arriving on schedule and in sufficient quantities to assure good balance in the market.

Shellac—Orange grade quotations eased 2c. per pound last week to the following levels:—Lemon No. 1, 48c. per pound; lemon No. 2, 46c. per pound; superfine, 43-44c. per pound; and TN, 42c. per pound (all prices are for 10-bag lots). The substantial decline in orange shellac prices—4c. per pound in the last three weeks—is said to be the result of a long supply situation coupled with a reduction in demand. Dealers expect to see a more favorable market as soon as the slack in supplies is taken up.

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A LOW TEMPERATURE FLEXIBILITY of −49°C. (Clash and Berg) makes KP-90 a desirable substitute for other more expensive low temperature plasticizers in outdoor applications. In any formulation requiring low temperature flexibility KP-90 can be substituted for the more expensive adipates, sebacates, azelates, etc. at a savings and with no loss of low temperature flexibility.

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Zirconium Expansion Sanctioned

—Continued from page 3

ernment with zirconium and hafnium oxide. Other firms submitting proposals are:—

Hugo Neu Corporation, New York; Harvey Machine Company, Torrance, Calif.; Horizons Titanium Corporation, Cleveland, Ohio; Wah Chang Corporation, New York; Rare Metals Corporation of America, Salt Lake City, Utah; Sanford Estes & Co., Chicago, and National Lead Company, New York.

AEC said that its zirconium and hafnium requirements which must be met before production from the new plants begins are likely to exceed present stockpile quantities and production. These growing needs of the agency will be met as follows:—

1. Carborundum Metals, AEC's current supplier, will increase its annual production from 200,000 pounds to 325,000 pounds.

2. Bureau of Mines plant at Albany, Ore., which was the pilot zirconium production plant in this country, will be reactivated to produce about 300,000 pounds annually beginning in August. Wah Chang Trading will operate the unit under a contract which will expire June 30, 1958.

The company was among seven which responded to a commission invitation for proposals to operate the facility. The other firms which submitted proposals to operate the Albany plant are:—Harvey Machine (proposal later withdrawn); Olin Mathieson Chemical Corporation, New York; Sanford Estes & Co.; National Lead; Heavy Minerals Company, Chattanooga, Tenn., and Fansteel Metallurgical Corporation, North Chicago, Ill.

3. Some 200,000 pounds of zirconium meeting AEC specifications will be imported from Japan under an arrangement made on behalf of the commission by the Commodity Credit Corporation. Deliveries are expected to begin this year and will be completed in 1957.

Each of the new arrangements includes the procurement of all by-product hafnium oxide which is obtained from the zirconium-bearing ores processed by the suppliers.

USI's multi-million-dollar plant will be located on the site of its sodium and chlorine plant at Ashtabula, and will use both of these chemicals in the process. According to the company, this will be the first semi-continuous process for making zirconium.

The USI process is based on new technics developed at the Cincinnati research division of National Distillers and, it is claimed, can also be applied to the production of other metals such as titanium, thorium, beryllium and hafnium. A number of patent applications on the various processes are pending.

USI has operated a 100-pound-per-day pilot plant for the past two years, and a 1,000-pound-per-day plant for the past six months at its Cincinnati research division for the production of such experimental metals as titanium, zirconium and thorium.

In discussing the plans for its facility, NRC Metals said it intends to make two grades of zirconium as well as other rare metals. Unlike the metal needed by AEC, it was pointed out, commercial grade zirconium need not be hafnium-free.

Commitments for zirconium are already being received from companies interested in both grades, the company added, and it is expected that this market will ultimately exceed government requirements.

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DuPont Initiating a First In Closed Circuit TV

Thirty hours of closed circuit color television programs will be used by the polychemicals department of E. I. duPont de Nemours & Co., Wilmington, Del., to supplement its exhibit at the seventh annual National Plastics Exposition to be held in New York City's Coliseum June 11 through 15. This will be the first use of closed circuit color television in the plastics industry—probably the longest single promotion of this sort by a chemical manufacturer, according to duPont.

Programs will be shown to more than 300 spectators at a time on twelve to fifteen receivers in the viewing room on the second floor of the Coliseum.

N. Y. Paint Club Picks Slate of Officers for '56

The New York Paint, Varnish & Lacquer Association will hold its annual meeting at the Biltmore hotel, New York, May 10. The nominating committee has selected Lester Arnstein, of Arnesto Paint Company, as presidential nominee.

Nominated for vice-president is Richard G. Bull, Sherwin-Williams Company; secretary, Walter M. Clark, Nuodex Products Company; treasurer, Frank E. Bolway, jr., D. H. Litter Company.

Pennsalt Names Munter

Dr. Paul A. Munter has been named director of analytical research of Pennsylvania Salt Manufacturing Company's research and development organization. Dr. Munter joined the Philadelphia firm in 1939.

Trade Briefs

Fenolic International Sales, New York, has named Stanley E. Hunter director of marketing.

Glidden Company, Cleveland, Ohio, has appointed Thomas R. Aberant manager of market research.

Asbestos Is Worth More Than Gold in S. Rhodesia

Asbestos has become the number one mineral of Southern Rhodesia, according to the Canadian Department of Trade and Commerce.

Production in 1955 topped 105,000 tons, worth $19 million, the highest figure on record. It thus regained its lead over gold, which last year was worth $17.8 million.

On the basis of these production figures, Southern Rhodesia is the world's third largest producer in volume. In quality, however, Rhodesian asbestos commands an average of $181 per ton, higher than South African ($121) or Canadian ($90).

Barreled Sunlight Elects Henry Solie Sales Head

Henry A. Solie has been appointed sales manager for Barreled Sunlight Paint Company, which was purchased last year by Pittsburgh Plate Glass Company, Pittsburgh, Pa., as a wholly-owned subsidiary.

Prior to his appointment, Mr. Solie had served as assistant general sales manager during the past two years. He has been associated with Barreled Sunlight since 1946, when he joined the company as a sales representative.

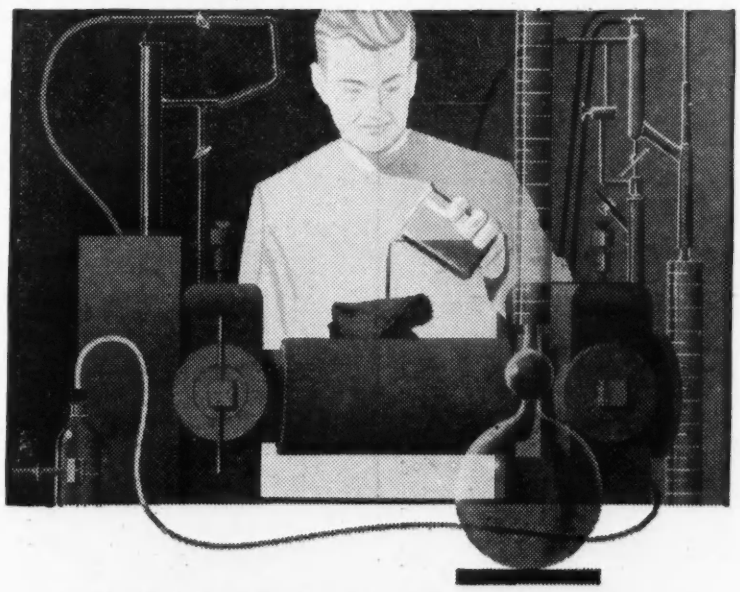
Gibson-Homans Appoints Three in Executive Posts

Three appointments have been announced by Gibson-Homans Co., Cleveland, Ohio. Eric S. Wormser is the company's new director of research.

Arthur L. Shirley, jr., has been named assistant sales manager. Newly appointed personnel director is Mary Vlnaty.

Bauxite Bill Is Passed

House bill 8228 to suspend import duties on crude and calcined bauxite for two more years until July 15, 1958, has been passed by the house. A provision of the current law which limits the duty suspension on calcined bauxite to such bauxite imported for use in the manufacture of fire brick or other refractories is repealed in the new suspension law to apply calcined bauxite for whatever purposes imported.



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Obituaries

Edward T. Gray

Edward T. Gray, former director and western division manager of Devoe & Raynolds Company, New York, died recently in Detroit, Mich. He was eighty-six years old.

Mr. Gray joined Devoe in 1882 at the age of twelve and rose to director of the company in 1925. He soon after was appointed western division manager and held both positions until his retirement in 1940.

Sidney Craven, dealer in vegetable oils and fats, died recently in Chatham, N. J. Mr. Craven was well known in the chemical industry.

Aage Gusmer, founder and president of A. Gusmer, Inc., Hoboken and Woodbridge, N. J., died May 1 in Wyckoff, N. J. He was seventy-one years old.

William Hargreaves, retired head of the tax department of Socony-Vacuum Oil Company, New York, died May 2 in Culver Lake, N. J. He was sixty-four years old.

Henry Weinert, a former employee of Bayway, N. J., refinery of Esso Standard Oil Company, New York, died April 29 in Roselle Park, N. J. He was seventy-one years old.

Glidden Lab Facility Is Opened in Toronto

Newly-erected laboratory facilities designed to provide technological services to trade sales and industrial paint customers in Canada have been opened in Toronto, Ont., by Glidden Company.

The Toronto research laboratory is under the supervision of F. L. Steele, technical director. Heading the technical service department is H. E. Emmett, who has a staff of technical service specialists.

The technical staff is being supplemented to handle requirements of the Canadian industrial and trade sales customers.

Company officials said personnel of the newly-established facility will work with the Glidden Canadian sales staff on all coating problems.

Technical service department facilities include a specially designed finishing room with an air replacement system, a full size water wash spray booth and an electric oven capable of handling large-size industrial products, including major appliances such as refrigerators.

Pitts. Plate Names Kaley

Appointment of P. Dudley Kaley as manager of sales for Pittsburgh Plate Glass Company's fiber glass division has been announced. Mr. Kaley formerly had served as manager of fiber glass textile sales in New York City.

Paraformaldehyde Bulletin Issued By Heyden Chemical Corporation

Heyden Chemical Corporation, New York, has published a technical bulletin "Paraformaldehyde," reporting on properties and uses of this form of formaldehyde. The new booklet summarizes the use of this chemical in the synthetic resin industry, where it is used in cold setting resorcinol-formaldehyde adhesives.

Uses of paraformaldehyde for the production of some types of urea-phenol-formaldehyde, where the water in aqueous formaldehyde, is not needed also are described. The application of paraformaldehyde as a hardening agent for protein material such as animal glue is detailed.

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Essential Oils, Aromatics

The market appeared slow but steady last week, dealers reported, with neither unusual shifts nor excessive softness showing in any areas. South American oils continued the downward trend, though the speed of their decline has abated somewhat in the last months and ocotea cymbarum alone showed an actual price decline. The French, Italian and North African floral oils continued to show firmness on all markets last as the first tightening of supply began to make itself felt. The real pressure should begin, most dealers said, with the arrival of the scant supplies of newcrop that will be available. Some oils, such as neroli, have already gone out of sight on spot. Neroli is selling for over $400 per pound.

Mint oils showed signs of developing softness on spot last week, it was reported. Dealers attributed the condition to reports of possible increases in acreage this year.

The long-term outlook in Italian lemon oil is regarded as particularly good because of winter damage to trees and crop in the major source areas. This condition of strength is reflected, dealers said, throughout the market. Though not necessarily true of the depth angle, dealers noted that nearly all citrus oils are looking particularly strong on the spot market (the temporary exception to this was grapefruit oil which declined 5c. per pound in price last week). Lemon, lime and orange oil all appear to be growing firmer in both the seasonal and the regular market areas.

The seeds and spices market as a whole appeared at its quietest last week that it has in a number of months. Though some material fluctuated slightly, material as a whole moved only fractionally. Mace continued its downward trend. Pimento appeared on the verge of downward movement. Cassia firmed ½c. across the board on spot; ginger remained firm though quiet.

Pepper continued to show excessive weakness in its market quotation, dealers reported last week, and reflected this through its lowest price level in many years. The price is only a fraction of the wartime peak reached during the height of the Korean conflict in 1951.

Price Trends

Advanced

Cassia, Batavia "A", ½c. per lb.
"B", ½c. per lb.
"C", ½c. per lb.
Corinje, "A", ½c. per lb.
"B", ½c. per lb.
"C", ½c. per lb.
Cinnamon, "0000", 6c. per lb.
Oil, lime, Mexican, 25c. per lb.
West Indian, 15c. per lb.

Reduced

Caraway seed, Dutch, ½c. per lb.
Celery seed, Indian, ½c. per lb.
Mace, East Indian, 5c. per lb.
Oil, grapefruit, 5c. per lb.
Ocotea cymbarum, 5c. per lb.
Poppy seed, Argentine, ½c. per lb.
Dutch, ½c. per lb.
Iranian, ½c. per lb.

Comparative Price Indexes

(100—1949 average)

Last week	Prev. week	Last month	May 6, 1955
137.62	137.60	135.08	137.52

For Current Prices see Page 9

Essential Oils

Amyris—Some stability appears to have touched this market, dealers reported last week. The current listing of $1.25 per pound, reflecting an earlier decline, has remained unmoved for a number of weeks.

Anise — Dealers noted last week that though direct importations from China continue to be ruled out, an easement of shipping prices in the international market is being attributed to a softening of the anise situation in China.

Demand for aromatic chemical replacements of anise continued relatively brisk on spot, producers said, although there did not appear to be the same amount of pressure for material that there was last fall.

Bois de Rose—Dealers reported that this commodity continued to show sluggishness on the market. Earlier tendencies toward firmness, just after the turn of the year, gave hope to dealers of a change in trend. However, the firmness dissolved virtually upon its entrance into the market and the situation has since been one of continued softening. Dealers concede that it will be a matter of time before the South American oils market will be able to right itself.

Cassia — Batavia and Korintje grades edged higher again last week, dealers reported. Shipment offerings, when cost of recleansing and loss in weight are considered, are still leading this market. Local stocks have been reduced and while there is no shortage in view, there is a much better balance between supplies and demand. Thinx quill Batavia is very tight on spot and there are only odd lots enroute.

Grapefruit—Dealers reported a decline in this commodity on the spot market last week. The new listing of $1.70 per pound is 5c. less than the previous quote. Dealers attributed the softening to light demand. This makes the grapefruit picture on spot travel in a direction contrary-wise to the rest of the citric fruit oils. Both lime and lemon oils have advanced recently in price and in most areas appear particularly firm in price.

Lemongrass — This oil has displayed considerable strength over the past few weeks notwithstanding reports of a greater production this year. Advices from the primary center point out that world demands have increased.

Lime—Both qualities of this oil firmed on spot once again last week. This was the second price advance within the month, dealers noted. The new listing of $3.40 per pound is 15c. per pound higher than the previous quotes for both Mexican and West Indian material, it was reported. The previous advance had been one of 25c. per pound. The firmness in this market is considered in some areas of spot as a key to the condition of the citrus market as a whole. However, most dealers acknowledge that lime as a whole is stronger in depth than the rest of the citrus market on spot.

Lemon—This oil showed indications of working into a decidedly firmer position last week dealers reported. They attributed the strength to the seasonal shifts in demand. Reports from Italy noted that prices will go higher as the effects of last winters weather on the crops becomes felt. Prices on domestic material has been firming somewhat. Demand for fruit flavors and other seasonal commodities has been advancing.

Ocotea Cymbarum—This oil continued to show soft tones last week, dealers reported, with the listing shifting down 5c. per pound. Dealers noted that the other South American oils also continued to show an easy position on both the spot and source markets. The price for this oil shifted downward several weeks ago.

Peppermint — Though supplies of this oil, particularly high test material, is light, there are reports current in the trade to the effect that a greater amount of acreage is expected to be planted in both this oil and spearmint. Both commodities are popular items in the flavoring field and in recent years there have been occasions when oil supplies were difficult to obtain.

Aromatic Chemicals

The three chemicals that declined on the spot market recently, heliotropin, linalool and linalyl acetate continued to show some ease last week, producers said. However, the position they found themselves in at the time of the easement has been greatly aleviated, it was noted.

Producers noted that many areas for development and exploitation have been opened by the extensive damage done to crop and trees in damaged essential oil source areas.

Anethol—Prices on this aromatic chemical were holding firmer, dealers reported last week. However, they noted, the pressure of demand has eased in comparison to the activity reported during the final quarter of last year.

Seeds and Spices

Cassia — Continued advancement was noted in this market last week, dealers said, as cassias firmed in price for the

—*Continued on page 79*

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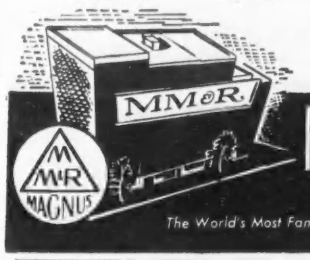

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Oils, Fats and Waxes

Sharp price fluctuations in edible oils featured the market last week. After cottonseed and soybean oils had reached the higest levels in the past five years, the futures market dropped drastically under heavy speculative liquidation and advances were wiped out. Cottonseed, corn and soybean oils declined to the previous week's levels, while peanut scored a net decline of one cent per pound.

Limited offers of tallow and greases kept this market steady, despite light trading. Domestic demand was restricted to small lots, with soapers reported showing little interest. Export demand for choice white grease and edible tallow raised quotations fractionally. Oleo oil was advanced sharply owing to sold up production. Oleo stearine also was higher.

Crude menhaden oil was firmer, with offerings scarce. Export interest was quite active. Refined fish oil was unchanged and well held Tung oil was quiet, but steady. Linseed oil was easier and prices declined one half cent per pound. Safflower oil was lifted sharply for prompt shipment. Rapeseed oil was scarce and higher.

Active trading in carnauba wax resulted in further price advances. All grades were boosted 2 to 3 cents per pound. Increased demand during the past two weeks has materially reduced spot stocks and replacements from Brazil are commanding higher prices.

Advance of $2 per ton for soybean meal was not maintained due to the sharp decline in beans and market closed at the previous week levels. Cottonseed meal was higher though more or less nominal. Peanut was lifted $2 per ton due to lower cost of oil and sold up production.

Price Trends

Advanced

Copra, $5 per ton.
Cottonseed meal, 50c. per ton.
Greases, choice white, ¼c. per lb.
Lard, cash, ⅛c. per lb.
Oil, coconut, crude, ⅜c. per lb.
Menhaden, crude, ⅛c. per lb.
Oleo, 1½c. per lb.
Palm, 1c. per lb.
Rapeseed, ½c. per lb.
Safflower, 1½c. per lb.
Oleo stearine, ¾c. per lb.
Peanut meal, $2 per ton.
Waxes, carnauba, crude, 2c.-3c. per lb.
refd., 2c.-3c. per lb.
Ouricury, pure, refd., 2c.-3c. per lb.

Reduced

Acid, linseed, ½c. per lb.
Oil, linseed, ½c. per lb.
Peanut, crude, 1c. per lb.
refd., 1c. per lb.
Sperm, 1c. per lb.

Comparative Price Indexes

(100=1949 average)

Last week	Prev. week	Last month	May 6, 1955
118.13	117.17	107.12	104.94

For Current Prices see Page 9

Vegetable Oils

Castor—This market remained steady for all grades. Consumers continued to absorb sizable lots for actual needs. No. 1 Brazilian and Indian were maintained at 18½c. pound, tankcars, New York, prompt delivery.

Coconut—Crude was firmer and advanced fractionally to 13c. per pound, tankcars, f.o.b. Pacific coast, May shipment with sales at 12½c. for June. Tankcars were offered at 14c., New York, prompt.

Corn—Market was irregular but closed steady. Crude sold at 16½c. per pound, tankcars, f.o.b. mills, prompt shipment. Refined was held at 20:59c. per pound, tankcars, New York, prompt.

Cottonseed—Bleachable cottonseed oil futures last week declined drastically as a result of heavy liquidation, which caught stop loss orders and wiped out early gains which had brought prices up to the highest levels since 1951. Lower soybeans combined with the delayed stoppage of 100 tenders on May contracts and postponement of oil purchase for Greece were dominant factors in unsettling the market. Trading was active and totaled a record volume. Demand for cash oil was inactive with refined salad was nominal around 20c. per pound, tankcars, New York, prompt delivery. Buying interest in cash oil and crude dried up and quotations were merely nominal.

Crude cottonseed oil sold up to 17c. per pound, tankcars, f.o.b. mills throughout the belt, before the break in futures, and closed at 16⅛c. tankcars southeast; 16c. sales, Valley; 16c. nominal Waco and 15⅞c. Lubbock.

Refined cottonseed oil consumption in March was indicated at 3,375 tankcars, against 3,462 in February and 2,266, March last year. Total disappearance for eight months (August-March) totaled 19,887 tankcars compared with 27,795 for the time period last year. Visible supply was estimated at 13,591 tankcars end of March against 16,589 a year ago.

Cottonseed Oil Futures

Sales and prices of prime summer yellow cottonseed oil futures in tankcars (60,000 pounds) on the N. Y. Produce Exchange for the week ended Friday, May 4, follow:—

	Sales	Cents per pound High	Low	Close
May	290	19.45	18.14	18.33@18.43
July	1,557	19.72	17.95	18.65S
Sept.	596	18.78	17.12	17.77@17.80
Oct.	34	17.80	16.33	16.69@16.80
Dec.	363	17.40	15.90	16.30S
Jan.	20	17.36	16.13	16.25@16.35
Mar.	66	17.39	16.08	16.23S
May	33	17.20	16.00	16.18S

Total sales, 2,961 contracts.

Cottonseed Crush: March

Cottonseed received and crushed and production of cottonseed products during March and February, as compiled by Bureau of the Census, follows:—

	March	February
Cottonseed	Tons	
Receipts	38,263	72,307
Crushed	496,535	617,695
Stocks	894,539	1,352,811
Crude Oil	Pounds	
Produced	170,524,000	211,401,000
Stocks	38,390,000	61,111,000
Refined Oil	Pounds	
Produced	180,538,000	182,780,000
Stocks	[1]396,811,000	[1]417,399,000
Cake and Meal	Tons	
Produced	229,954	287,668
Stocks	250,690	220,215
Hulls	Tons	
Produced	113,352	140,654
Stocks	140,675	138,965

[1] Includes 21,000,000 pounds of refined cottonseed oil owned by Commodity Credit Corporation. This figure, as well as the comparable February 29 total of 61,900,000 pounds, includes quantities sold for export and not lifted but excludes quantities sold for export and being processed. As of March 31, CCC reported no quantities of refined cottonseed oil, being removed from inventory and put in an "in-transit" position to other storage.

Linseed—Quietness prevailed in this market last week. Quotations were weak and declined ½c. per pound. Raw oil was lower at 15½c. per pound, tankcars, Minneapolis, May-August delivery. Consumers continued to take a good volume against former contracts.

Flaxseed—Stocks in all storage positions on April 1 amounted to 20.1 million bushels according to the Crop Reporting Bureau. This total is about 15 percent less than stocks on hand a year ago, over 25 percent below April 1, 1953, and the third smallest April 1 stocks on record.

Minneapolis.—Offerings of cash flaxseed were extremely light. Cash flax seed was higher at $3.25 per bushel with trading moderate thereat. Export business was rather quiet, although it was reported that France purchased about 200,000 bushels of flaxseed. Seeding was getting under way in the main producing area of South Dakota. Generally, topsoil moisture is adequate over most of the state with subsoil moisture deficient. Cold weather has delayed field work elsewhere in the flax producing area. Only 2 cars traded in the spot market, while to-arrive bookings totaled 11 cars and 21,310 bushels in trucklots. Receipts of seed for all accounts totaled 116 cars, compared with 68 cars a year ago. Shipments amounted to 48 cars, against 38 a year ago.

Receipts and shipments of flaxseed, in bushels, were as follows:

	Receipts 1955-56	Shipments 1955-56	1954-55
Past week	201,250	84,000	66,500
Since Sept. 1	23,077,250	5,129,250	4,650,000

Oiticica—Trading was spotty. Liquid was maintained at 15½c. per pound, tankcars, New York, prompt and later deliv-

Oils, Fats and Waxes

ery. Drums were unchanged at 17c. to 17½c. per pound, spot, as to quantity.

Olive—Market remained firm, despite heavy arrivals from Spain. The bulk of arrivals, however, was sold for reshipment abroad. Stocks here were well held, with sales ranging from $3.60 to $4 per pound, drums, duty paid, according to quantity and quality.

Palm—Stronger primary market resulted in further advances for spot stocks. Drums were higher at 16.10c. to 17.10c. per pound, as to quantity. Tankcars were raised to 13.95c. per pound, New York, future delivery.

Peanut—Crude was lower, with active trading at 16¾c. per pound, tankcars, f.o.b. mills, prompt shipment. Refined was lower at 20¼c. per pound, tankcars, New York, prompt delivery. The government last week released peanuts to make about 48 tankcars of oil.

Rapeseed—Owing to scarcity of stocks, refined was further advanced to 18¼c. per pound, tankcars, New York, prompt delivery.

Soybean—This market broke wide open last week after reaching new highs. Crude sold up to 16⅝c. per pound, tankcars, Decatur, for May-July delivery early in the period, with sales reported at 15¾c., at the close of the week. Refined salad also was irregular and nominal at 19c. per pound, tankcars, New York, prompt delivery.

Disappearance of crude soybean oil in March totaled 4.618 tankcars compared with 4.672 in February and 3.850, March last year. The total for the first half of this season (October-March) amounted to 26,925 tankcars, against 22,079 for the same time the previous season. The visible supply at the end of March was estimated at 14,335 tankcars, against 4,954 a year ago.

Soybean stocks of 176.5 million bushels were reported in all storage positions on April 1, according to the Crop Reporting Board. These are the highest April 1 stocks of record exceeding last year, the previous high by only one-half million bushels. Stocks on hand April 1, 1954, amounted to 118 million bushels.

Soybean Crush: March

Soybeans received and crushed and production of soybean oil and meal during March and February, as compiled by the Bureau of Census, follows:—

Soybeans

	March	February
	——Tons——	
Receipts	656.107	648.171
Crushed	760.953	735.841
Stocks	2,020.983	2,125,829

Refined Oil

	——Pounds——	
Produced	251,048,000	249,371,000
Stocks	80,018,000	81,159,000

Crude Oil

	——Pounds——	
Produced	281,442,000	271,253,000
Stocks	57,348,000	53,450,000

Cake and Meal

	——Tons——	
Produced	584,396	563,223
Stocks	177,979	137,487

Soybean Oil Futures

Sales and prices of crude soybean oil futures in tankcars (60,000 pounds) on the New York Produce Exchange for the week ended Friday, May 4, follow:—

	Sales	——Cents per pound—— High	Low	Close
May	20	16.43	15.60	15.82S
July	33	16.68	15.70	15.82S
Sept.	16	15.20	14.95	15.34@15.40
Oct.	4	14.45	14.45	13.84@13.90
Dec.	43	14.14	13.44	13.44S

Total sales, 116 contracts.

Tung—CCC sold 32 tankcars last week at prices ranging from 22.56c. to 22.65c. per pound, tankcars, Gulfport, Miss. Bids for 102 cars were received. This range was about 15c. per 100 pounds below April sales. Local market was quiet but steady. Tankcars were nominal at 23½c. per pound, New York, basis and domestic oil 23¼c., f.o.b. mills.

Miscellaneous

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Oils, Fats and Waxes

reported unavailable and market was a nominal affair.

Imports of castor beans and castor oil at New York and Philadelphia last week were as follows:—

	Pounds	
	Beans	Oil
Last week	206,550	600,000
Previous week	1,164,900	600,000
Corresponding week, 1954	39,420	2,374,000
Total this year	17,897,200	25,657,000
Corresponding period, 1954	41,297,315	29,408,000

Cocoa Butter—Trading was quiet. Prices were unchanged at 47c. to 52c. per pound, spot as to quantity.

Copra — Shipments were stronger and advanced to $170 bid and $174 asked per ton, c.i.f. Pacific coast.

Fats and Greases

Greases — Trading was moderate, but the market was steady due to limited offers. Choice white was stronger, with sales for export at higher levels. All hog was reported sold at 8¾c. per pound, tankcars, delivered and up to 9c. asked. Not all hog ranged from 8½c. to 8¾c. Yellow also was well held at 7⅛c. to 7¼c. per pound, same basis.

Lard—Futures fluctuated widely with vegetable oils, but closed fairly steady. Cash lard was quoted at 13.60c. per pound, drums, Chicago.

Oleo Oil—Sold up production further stiffened extra and quotations were lifted to 18c. per pound, drums, prompt delivery. Oleo stearine also was higher at 13½c. to 14c. per pound, barrels, as to quantity.

Tallow—Steady tone prevailed, despite spotty trading. Light offers were well held at former quotations. Bleachable fancy sold at 7¾c. per pound, tankcars, delivered; extra ranged from 7½c. to 7⅝c.; special, 7½c. and No. 1, 7¼c. Edible was lifted to 12c. per pound, same basis. Export business was reported light. Guaranteed fancy was quoted at 9¼c. to 9.30c., drums, f.a.s.

Fish Oils

Menhaden Crude — Market continued strong with offers of new crop scarce and held at 9⅛c. per pound, tankcars, works, Atlantic and Gulf coasts, Export inquiry continued keen, though actual trading still slow.

Refined fish oils remained steady and unchanged. Light pressed maintained at 11½c. per pound, tankcars, New York, prompt delivery.

Los Angeles.—Summer production of crude tuna oil witnessed considerable buying interest with sales at 6⅛c. per pound, tankcars, for July-August delivery. No offerings were on the market at closing. Limited supply of Canadian herring oil was reported at 10¼c. per pound, U. S. Funds, f.o.b. Vancouver.

Sperm—Market was lower, off 1c. per pound due to increased available stocks from the Antarctic. Natural was quoted at 14c. per pound and bleached winter, 15c. tankcars.

Cake and Meal

Cottonseed Meal — Market continued steady with most buying interest from exporters. Domestic buyers continued to operate on a hand to mouth basis. Old process, forty-one percent was offered at $52.50 per ton Memphis; $51.50 lower Mississippi Valley points; $54 Alabama; $58 Georgia; $60. Carolina mills, and forty-one percent solvent at $51. Memphis and $50 lower Mississippi Valley points for May shipment.

Linseed Meal—Trading slow. Market unsettled due to resale material.

Minneapolis.—Linseed meal market was rather quiet last week. There was less export inquiry, and crushers were not anxious sellers in the export market. Domestic users reverted to hand-to-mouth buying policy. Directions declined somewhat, but were still described as fair to good. Crushers quoted extracted linseed meal, 36 percent protein, at $53 to $54 a ton for May forward, bulk, in carlots, f.o.b., Minneapolis. Old process expeller type was $59.50. Re-sale meal was available at $1 to $1.50 less.

Shipments of linseed meal, in pound, were as follows:—

	1955-56	1954-55
Past week	18,960,000	10,680,000
Since Sept. 1	563,890,000	485,820,000

Peanut Feed Meal — Exporters still dominated this market. Prices continued strong, with more bids in the market than supplies to cover. Forty-five was sold at $62 to $64 per ton sacked for May-June shipment f.o.b. Georgia and Alabama shipping points. Last week the government released peanuts to produce from 2,000 to 2,500 tons of meal.

Soybean Meal—Higher prices were not sustained due to sharp break in soybeans. Processors still have adequate supplies and buyers seem to be well covered for May requirements. Forty-four percent unrestricted was nominal at $57 per ton, bulk, Decatur for May; and $59, June-September.

Waxes

Continued active consuming demand for carnauba wax resulted in further price advances ranging from 2c. to 23c. per pound for all grades last week. Trading was active for spot as well as forward delivery. Buying interest continued keen. The trend of the market appears toward still higher levels due to high cost and scarcity of offers for shipment Brazil. Yellows were scarce here and for replacement and prices advanced 3c. per pound. No. 3 crude and refined Ceara and Parnahyba grades were lifted at least 2c. per pound, with indications of further advances. Refined ouricury wax was stronger and was raised 3c. per pound, while technical was firm and unchanged. Demand for beeswax was spotty, but market remained steady with the firmness of crude. Stocks of candelilla on spot were reported smaller and replacements from Mexico continued limited. Japan wax was quiet, but steady as reports of lower Japanese market were denied.

Essential Oils

—Continued from page 75

second time in as many weeks. The new listings are ½c. advances across the board for all qualities of Batavia and Corinje cassia. Offerings for shipment continued sparse and high. Shippers reported that harvesting rice and other crops prevented cutting new cassia stocks. Gradually spot supplies have been reduced materially. Since little replacement material has been arriving, the shift in price was inevitable, dealers noted.

Clove—Some new firmness was noted in the market last week, dealers said, though it hasn't to-date been reflected in quotation shifts. Dealers attributed the firming to heavy buying on the part of Indonesia. Listings on the spot market continued at 39c.-40c. per pound for Madagascar and 48c. per pound for Zanzibar.

Mace—Further softening was noted in this market last dealers reported as the prices declined the second time in as many weeks. The new listing of $2.15 per pound for East Indian material is 5c. per pound less than previous. Two weeks ago the material declined 10c. per pound. West Indian material continued at the old quote of $1.90 per pound. However, even at this price it appeared somewhat soft.

Paprika—The cold winter in Spain has delayed planting of the new crop by at least a month, dealers reported last week. This will probably delay arrival here until November. Present stocks of top qualities are small for this time of the year and the shipping season is fast drawing to a close.

Pepper—The market continued to show some softness in spite of recently declined prices, dealers reported last week. The 28c. per pound figure to which the market dipped two weeks ago was one of the lowest levels pepper has known since the war. This is borne out by the following facts:

The average spot price in New York during the post-war period was as follows:

1947	$0.44½	1952	$1.52
1948	.61	1953	1.28
1949	1.00	1954	.74
1950	1.61½	1955	.43
1951	1.68½		

The New York spot price early January, 1955, for Malabar/Lampong was quoted at 41½c. per pound; advanced at the end of May to 53c. and at the end of December ruled at 38c. after having dipped early December temporarily to 34½c. per pound. Since then it has declined further to the 28c. quote of two weeks ago, which is 15c. below last year's average.

The development during 1955, dealers contend, has proven that absorption is not necessarily related too closely to the price level, inasmuch as both declined during 1955. As stated above, this may have been due to the phenomenal increase of 50 percent in absorption during 1954 over 1953. For that reason it is extremely difficult to gauge whether absorption will increase substantially during 1956 due to the lower price. It should be noted, dealers remarked, that 1955 world absorption of 46,365 tons is still about 14,000 tons below the pre-war world consumption of 60,000 tons.

Pimento—Though the market continued as a whole to show stability, dealers reported a 1c. decline in the price of Mexican material. The new listing is a 57c.-58c. per pound range. Jamaica material continued at the previous quote of 84c.

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3—Link Belt Roto-Louvre 7'5"x20', 5'2"x20', 3'10"x12'.
3—Hersey 4'x30', 3'x20', 18"x12' S/S Hot Air Rotary.
1—Buflovak 2'x4' double drum Vacuum.
4—Stokes single door Vacuum Shelf with 10—40"x43" shelves.
3—Devine double door Vacuum Shelf 17 and 20—59"x78" shelves.
3—Stokes Rotary Vac. 3'x15', 30"x8', 18"x42".
1—Devine Rotating Vacuum 5'x10'.
2—Louisville Rotary Steam Tube 38"x25', 6'x40'.
4—Rotary Dryers 5'x30', 4½'x50', 6'x40', 6'x74'.

MIXERS

1—Baker Perkins #16 VUEM double arm Dispersion Mixer, 150 gal.
6—Day "Cincinnatus" double arm 600, 200 and 100 gallons.
3—Abbe Aluminum Powder 12, 20 and 40 cu. ft.
9—Steel jacketed Powder 50, 225 and 350 cu. ft.
1—Struthers-Wells 6'x9' S/S Rotating, jacketed.
2—Robinson S/S jacketed Powder 48"x7'6" long, 90 cu. ft.

MILLS

1—Patterson NEW 6'x8' Porcelain lined Mill 50 HP motor.
3—Abbe Paterson 6'x8' unlined Ball Mills.
3—Abbe 5'x6', 4'x5', 3'x3½' Silex lined Pebble Mills.
3—Mikro Pulverizer Bantam and #2TH.
1—National 6"x12" Two-Roll Mill, motor driven.

CENTRIFUGES

2—Sharples C-20, C-27, Super-D-Hydrators, 316 S/S.
2—Bird 18"x28", 24"x30", stainless and steel, Solid Bowl Continuous.
1—Bird 40" Suspended, rubber covered, imperforate basket.
2—Bird 40" Suspended 347 S S, perforated basket, TEFC motor.
1—AT&M 36" center-slung, rubber covered, perforated basket.
1—Fletcher 30" center-slung, S S perforated basket.
1—Fletcher 20" suspended S/S perforated basket.
2—Podbielniak Model 6080 S/S Extractors, 10 HP XP motors.

REACTORS, CONDENSERS, TOWERS, TANKS

4—Pfaudler glass lined, jacketed, agitated Reactors 750, 350, 250 and 50 gal.
1—2500 gal. 304 S/S jacketed Reactor.
8—4000 gal. 7'x14' Steel jacketed, agitated Kettles.
1—10'x16' Aluminum Tank, ½" shell, 10,000 gals.
2—5,000 gal. Vertical 347 S/S Vessels, 1/2" shell, 120 psi.
2—Pfaudler 100 gal. glass lined, jacketed, agitated Reactors.
1—8500 gal. Horizontal Pressure Tank, 275# W.P.
2—10'x40', 10'x30' Horizontal Storage Tanks 3/8" shell.
2—Pfaudler 2500 gal. glass lined Tanks.
25—Atmospheric S/S Heat Exchangers 715 & 477 sq. ft.
1—Struthers-Wells 536 sq. ft., 304 S/S Heat Exchanger.

FILTERS

1—Oliver 8'x10' Monel Rotary Vacuum.
3—Eimco 18"x24", 18"x12", 316 S/S Rotary Vacuum.
1—Feinc 5'x3' Monel Rotary Vacuum String.
2—#3 Sweetland S/S Filters, 12-25" dia. leaves 75 sq. ft.
4—#3, #5, #7, #12 Sweetland Filters.
4—Shriver 36"x36", 30"x30", c.i. Filter Presses, P&F, washing.
2—Shriver 24"x24" P&F rubber covered, washing.

MISCELLANEOUS

2—Foster Wheeler Dowtherm Units 250,000 and 4½ Million BTU.
4—Orville Simpson Rotex Sifters 40"x120", 40"x84."
6—Robinson, Sprout Waldron S/S Sifters 40"x84", single deck.
5—Stokes DDS2, "R" and "T" Tablet Presses.
1—Komarek-Greaves Briquetting Press 316 S/S, 20 HP motor.
2—Ball & Jewell #2, #1½ Rotary Cutters.
7—Nash Vacuum Pumps #H7, #H6, #L5, #4, #2.
2—Beach-Russ Model "D" Vacuum Pumps 50 cfm.
7—Durco S/S Centrifugal Pumps 1" to 3".

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KETTLES

3—Bartlett Snow 6' dia. x 3' deep Jacketed and Agitated Stainless Steel Crystallizing Kettles.

4—Jktd. St. St. closed—to 450 gal.

35—Jktd. St. St. open top—to 550 gal.

4—Aluminum Reactors, Jktd. & Agit., 35 to 250 gal.

MILLS

1—Stewart Bolling 2-Roll Mill, 6"x12".

1—Ross 3—Roll Ink Mill, 9"x24".

1—Day 3 Roll Ink Mill, 16"x40".

1—St. St. Pug Mill, two 7" dia. x 39" L overlapping chambers, jacketed.

1—Patt. Fdy. "DJ" Unlined Jacketed Steel Ball Mill, 6' dia. x 8' long—UNUSED.

2—Pebble Mills, 6' D x 8' L.

4—Abbe Pebble Mills, 38"x42", 38"x48", 48"x42".

1—Al. Ch. 6' D x 16' L Steel Lined Contin. Ball Mill.

3—4'6" D x 12' L contin. Pebble Mills.

1—Hardinge 6' D x 22" L Conical Ball Mill, Steel liner.

1—Charlotte #50 Colloid Mill, 75 HP.

1—Penna. Ring Type Granulator, Trojan K3-24, 40 HP.

3—Fitz. Comminutors, St. St., D-6, F-8 & K.

5—Hammer Mills: Jeffrey 42x36 Gruendler 36x24; Jay Bee #4-W, 75 HP; Williams 14"x14"; Williams size A, St. St. and Aluminum.

1—Sturtevant 8x10 Jaw Crusher.

2—Attrition Mills, 30" & 24".

3—Mikro Pulv. #2-DH; #2-TH; 3-TH.

MIXERS—BLENDERS

1—Sprout Waldron Swing Head Blender, 50 HP.

1—Patterson Cone Blenders, 5' dia.

2—Day 75 gal. Stainless Steel Double Arm Sigma Blade Jacketed Mixers.

2—Readco Heavy Duty Double Arm Sigma Blade Jacketed Mixers, 50 gal. work. cap., 30 HP Expl. Pr. Motor. Built 1951-53.

3—Sprout Waldron Ribbon Mixers, 336 cu. ft. (12,000 lbs.) work. cap.

3—W&P Sigma Blade Double Arm Jacketed Mixers, 50 gal. & 100 gal. work. cap.

7—Side Entering Stainless Steel Mixers, 10 HP to 25 HP.

3—Falk Vert. Agitator Drives #10-GDX, 10:1, 300 HP—UNUSED.

12—Turbo vert. drives #5B, 5:1, 40 HP.

PUMPS

1—Ing. Rand #10-ALV Centrifugal Pump, bronze fitted, rated 3000 GPM @ 200'—UNUSED.

3—Centrifugal Pumps, 1000 GPM—50', 86' & 91' resp.

2—Ing. Rand #1½—CRVNL—all bronze Centrifugal Pumps, 2"x1½"—UNUSED.

12—Aurora All Bronze Turbine Pumps, models II-5, G-6, H-6—UNUSED.

1—Byron Jackson Bronze Deep Well Turbine Pump, 20 HP, 150 GPM.

TANKS

10—4,600 gal. Brewery Glass Lined Welded Steel Tanks.

75—Welded Steel Tanks, dished heads, up to 23,000 gal. cap.—Horiz. and Vert.

6—4500 gal. St. St. Clad Jacketed Tanks with agitators.

1—St. St., T304, ⅛" 10,500 gal. Horiz.—UNUSED.

1—St. Clad. T304, ⅜", 6500 gal. Vert.

10—St. St. Pressure Tanks—to 4000 gal.

20—St. St. Storage Tanks—to 1000 gal.

12—Aluminum, 3000 gal., 5 compart.

10—Aluminum, 500 gal., 80# WP.

1—Monel 450 gal., ¼".

PIPE & FITTINGS

350' St. St. Tubing, T316, 1¼" OD x 14 ga. x 7'2" long.

1000'—St. St. Tubing, T347, 3" OD x ⅛" wall—USED.

150—St. St. Flanged Gate Valves, T302/304, 150#, 1½", 2", 2½", 3"—USED.

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C27 Sharples Super-D-Hydrator SS.
C20 Sharples Super-D-Hydrator SS.
PN14 Sharples Super-D-Canter SS.
36"x50" Bird Cont. Centrifuge.
40" Bird Centrifuge, suspended.
40" SS Bird Sus. Perf. Centrifuge.
48" Bird SS Centrifuge, perf.
310-12 L. B. Roto Louvre Dryer, SS.
625 CFM Worth. Compressor, 100 PSI.
190 sq. ft. SS Evaporator.
5'x10 Hearth Herreshoff Furnace.
24" Shriver Rubber Covered Filter.
24" Filter Press, aluminum P&F.
Sharples Nozlejector SS.
Jeffrey Hammermills, 8x15 to 20x24.
140 cu. ft. Paddle Mixer. NEW.
2TH Micro Pulverizer.
ISW Micro Pulverizer.
412G Stokes Microvac. NEW.
4/0 Raymond Pulverizer.
100 gal. Pfaudler Reactor.
200 gal. SS Reactor.
350 gal. Pfaudler Reactor.
750 gal. Pfaudler Reactor.
2000 gal. Reactor, 200 PSI
3000 gal. SS Reactor.
48" SS SWECO 3-Deck Sifter. NEW.
28A Robinson Gyro Sifter, SS.
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502-20 L. B. Roto Louvre Dryer.
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2500 gal. glass-lined Storage Tank.

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Devine #12 & #23 Vac. Shelf Dryers.
Stokes 2'x6' Rotary Vac. Dryer.
1—Allbr. Nell 4x9 Atmos Drum Dryers.
1—Buffalo Vac. Drum Dryer, 24"x20"

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4—Tolhurst 40" Suspended Type.
8—Centrifugals, 12", 20", 26", 30", 40" & 48" Steel, Copper, Stainless & Rubber.
6—Sharples No. 5A Stainless & #6.
2—De Laval Multi Clarifiers 300 & 301.

FILTERS

#2 Sweetland Filter 12 Stainless covered leaves
1—Vallez Filter #49 with 41 Stainless covered 44½" dia. leaves.
Gen. Amer. 2'x1' Rotary Vac. Filter.
Sperry and Shriver 6" to 36" iron & wood.
Sweetland & Oliver Filters.

KETTLES AND TANKS

Pfaudler 250 gal. Glass Lined Jack. Kettle.
Dopp 350 gal. Agit. Jack CI Vac Kettle.
2—Impreg. Units 30" & 36" dia. complete.
6—Jack. steel Kettles to 1000 gals.
2300 gal. vert. agit. Jack. Steel Kettle.
1—250 gal. Lead lined Kettle.
Stainless, alum., copper. Glass lined, lead lined and steel kettles and tanks.

PULVERIZERS AND MILLS

2—Mikro Pulverizers #2TH & #2SI.
Abbe 37"x30" chrome-mang. Ball Mill.
Patterson 30"x42", 4'x5' & 6'x8'.
Abbe 30"x30". Also Jar Mills.
#1 Raymond Autom. Pulverizer, 20 HP.
1—#00 Raymond Mill, 30 HP complete.
2—#0000 Raymond Mills.
Sturtevant #0, 18" hinged Hammer Mill.
Schutz-O'Neill #1 & 20" Pulverizers.
Williams #3 & 2XX Hammer Mills.
Ball & Jewell Rotary Cutters Lab & up.
Jeffrey 18"x18" single Roll crusher.
2—Robinson 18" & 22" BB Attrition Mills.
1—Lehman 4 roll WC., 12"x36" Steel Mill.
4—Lehman & Kent 3 Roll Steel Mills, 9" x32", 12"x30", 16"x40".
1—Monarch 9"x24" Steel Roller Mill, 3 pr. high. Also 7½x20, 4 Roll.
Houchin 18"x30" 4 Roll Granite Stone Mills.
2—U.S. & Premier 1½ H.P. Colloid Mills.

MIXERS, SIFTERS & SCREENS

Day Imperial 75 x 150 gal. Jack. Mixers.
Lancaster 6' dia. Vert. Mixer 25 HP.
Kent 3 HP. continuous dry mixer.
Baker Perkins double arm Mixers, 100 & 50 gals. Also single arm Mixers.
Blystone 3000# horiz. spiral mixer.
Day Brighton 20 gal. Change Can Mixers.
Read 50 & 100 gal. double arm mixers.
Read 80 qt. vert. mixer, 3 speed.
Tyler 3'x5' Vibratory 2 deck Screen.
10—Dry Powder Mixers, 50 to 3,000#.
3—Day 8, 15 & 40 gal. Pony Mixers.
15—Portable Elec. Mixers, ¼ to 3 HP.
6—Lead and Paste Mixers to 150 gals.

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Stokes 280A 4" dia. Preform Machine.
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Tablet Machines, Single Punch & Rotary.
Anderson & French Oil Expellers.
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1—Howe Mogul barrel and bag packer.
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1—Roto-Louvre 705-20 S.S. lined Rotary Dryer.
1—Patterson 5' x 22' Ball Tube Mill—Unused.
3—Sturtevant #10 & #12 Rotary Blenders—Unused.
1—A.T. & M. 60" S.S. Centrifuge, M.D.
2—Devine 20 shelf Double Door Vacuum Shelf Dryers, 59" x 78".
6—Surface Condensers & Receivers 50 to 150 sq. ft.
1—Stokes Microvac Pump 60 c.f.m. M.D.
4—Day & Ross 40 gallon Pony Mixers 1 & 2 speed, M.D.
2—Rotex Sifters 40" x 66" Double and 40" x 84" single deck, M.D.
1—Tri-Homo Disperser #4 w/5 H.P. Motor.
1—Lee 300 gal. S.S. Jack. Kettle 90# W.P.
1—Pfaudler 500 gal. G.L. Reactor.
1—Double Drum Dryer 4' x 9'.
1—Buflovak 6' dia. Vac. Crystallizer.
1—Patterson 4' x 5' Pebble Mill, M.D.
1—Tolhurst 40" Sus. Style Rubber Lined Centrifuge.
1—W & P 100 gal. Double Arm Jack. Mixer, M.D.
1—Day Imperial Stainless Steel 350 gal. Mixer, Type MDF.
2—Patterson 5' and 6' Double Cone Blenders, M.D.

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Rotex 40"x84" Sifter, 4 separations, 2 hp motor
AT&M 60" Centrifugal 316 SS with 10 hp mtr
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J. H. Day #3, 50 gal. Gearless Pony Mixer.
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1—Link Belt Roto Louvre Dryer, Model 502-20.
1—Bartlett & Snow Rotary Dryer, 4'6" x 36'6".
2—Rotary Dryers, 4'6" x 40'.
1—Stokes Rotary Vacuum Dryer, 3' x 12'.
1—Devine Rotary Vacuum Dryer, 5' x 20'.
1—Buflovak Double Drum Dryer, 42" x 120", ASME.
1—Buflovak Double Drum Dryer, 24" x 36".
1—Mikro #2TH Pulverizer with 15 HP motor.
2—Mikro #1SH Pulverizer.
1—Mikro #1SI Pulverizer, with motors, complete.
2—Bantam Mikro Pulverizers.
1—Read Double Arm Sigma Blade Jacketed Mixer, 50 gal.
2—Baker Perkins Laboratory Double Arm Sigma Blade Mixers, 0.7 gal. each.
10—Baker Perkins Double Arm Sigma Blade Jacketed Mixers, 100 gal.

1—Mikro #4TH Pulverizer with 60 HP TEFC motor.

1—Baker Perkins Double Arm Jacketed Mixer, 300 gal.
1—J. H. Day Stainless Steel Double Arm Jacketed Sigma Blade Mixer, 200 gal.
1—J. H. Day Gearless Pony Mixer, 50 gal., complete.
1—International 19 cu. ft. Stainless Steel Conical Blender.
1—Stainless Steel Jacketed Kettle, 2500 gal.
2—Stainless Steel Jacketed Kettles, 1200 gal. ea.
1—Stainless Steel Storage Tank, 3000 gal.
6—Patterson Steel Jacketed Kettles, 2500 gallons each.
3—Stainless Steel Jacketed Kettles, 125 gallons each.
10—Aluminum Horizontal Storage Tanks 9' x 36', 17,000 gallons each.
1—Acme Type 316 Stainless Steel Jacketed Reactor, 2,000 gallons.
1—Pfaudler Glass-lined Jacketed Reactor, 200 gallons with Anchor Type Agitator.
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1—Sperry 2-eyed Closed Delivery Filter Press, 24" x 24", 20 chambers.
2—Bird Continous Centrifugal Steel Filters, 24" x 38", complete with 30 HP motors.
10—Sweetland #12 Filters with 72 Stainless Steel Leaves.
1—Bird Continuous Centrifugal Filter, 40" x 60" (New).
2—Ross Aluminum Heat Exchangers, 77.5 sq. ft. and 155 sq. ft.
6—Badger Aluminum Condensers, 5, 106, 122 sq. ft.
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12—Struthers Wells Stainless Steel Heat Exchangers, 650 sq. ft. ea.
2—Ross Steel Heat Exchangers, 852 and 936 sq. ft.

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Bird Continuous Centrifuge 18" x 28"; with Solid Conical Bowl.

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2—Haskins Cap Tighteners, m.d.
1—4TH Mikro Pulverizer 60 HP, tefc.
2—Stainless Steel Hersey Rotary Dryers, 5'x26' and 6'x23'.
2—8'x125' Rotary Kilns.
3—Buflovac 42x120, 32x120 Atmos dbl. Drum Dryers, complete; 1—American 24x36.
2—54"x70" and 1—40"x60" Bird Continuous Centrifugals, S.S Solid bowls.
1—Day ±30 Imperial jack. Mixer, 75 gal.
1—Buflovac 48"x40" Drum Flaker, chrome plated, s.s ends.
9—Sperry 18"x18" Filter Presses, 11 ch.
1—Link-Belt Co. ROTARY DRYER. Roto-Louvre, ±502-16 Type C, 5'2" dia. 16' long with ±304 S.S contact parts.
5—Horiz. Dry Powder Ribbon Mixers, 4000#, 1500#, 500#.

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FEEDER-SYNTRON F22 w/control.

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BALL MILLS—Hardinge 6'x22", w/New Lining, 7'x48" Pebble—5'x21' tube.

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CRUSHERS—ROLL—16x10, 30x16 Chambers, 42x16 Allis Chalmers "B".

MIXERS—Stokes 13 gal. Lancaster EBG & EAG W/skip hoist—2000/6000# ribbon.

ROTARY DRYERS—12"x22', 3'x20', 39"x21', 44"x25', 5'x40', 6'x30'.

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1—Buflovak 14 shelf vac. shelf Dryer—42"x42".
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1—Fitzpatrick model K comminuter.
1—Louisville 6'x35' stainless & alum tubular Dryer.
2—Sweetland Stainless 690 sq. ft. Filters—hydraulic closing.
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2—Day 75 gal. stainless jacketed sigma blade 2 arm Mixer.
2—Patterson & International stainless and steel 25 cu. ft. conical Blenders.
3—Kent 14 x 30"—3 roll high speed roller mills.
1—Ross 9 x 24"—3 roll high speed roller mill.
4—Day 40-8-2½ gallon pony mixers.

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Line Required: established manufacturer's agents—Cleveland office—additional major line raw materials for paint, rubber, printing ink. Can assure top quality technical representation throughout Northern Ohio, Detroit, Buffalo. Replies confidential. OPD 956.

Complete Ban on Heroin Proposed by Senate Group

A subcommittee of the senate judiciary committee which has been investigating illicit traffic in narcotics, recommended last week that heroin be outlawed completely in the United States and that sellers of the drug to minors be given the death penalty in aggravated cases.

A bill (S. 3760) carrying out the committee's recommendations was introduced by Chairman Price Daniel of Texas and is expected to be given prompt approval by the full committee and reported for passage.

A similar bill also is to be sponsored in the house by the Boggs subcommittee of the ways and means committee which likewise has been investigating the narcotics problem.

The Daniel subcommittee found that heroin is the most deadly of all narcotic drugs and that it is used by 80 percent of all drug addicts in the country.

The subcommittee said that it has no medical use which cannot be served better by other drugs. The bill provides, therefore, that heroin now lawfully held must be surrendered to the federal government and the owners fairly and justly compensated.

Growth Company's Problem: To Grow

—Continued from page 5

big, dramatic things—a new favorably situated plant, or development of a new especially successful product. But growth begins with much less striking things—with the day-by-day decisions that result in quality products, which are efficiently produced and fairly priced.

Management a Conductor

"To achieve these ends management is somewhat in the position of a conductor who leads a large, enormously complicated symphony. Among the instruments in the industrial orchestra are sales, engineering and production; research, accounting and purchasing; general development, legal work and patent work; and industrial relations, financial relations, and public relations.

"These, and many more, must must be meshed into one harmonious whole—although they often seem to play conflicting tunes. All these instruments must be kept in proper tune if the industrial orchestra is even to function. And a growth company requires even more—a near-perfect balance and harmony.

"Achieving this harmony is management's principal function. If it succeeds it does so by meeting decisively a deluge of day-in-and-day-out problems.

"The management of a growth company may have its wretched souls, but not because they are indecisive," Mr. Murray said.

Reasons for Growth

"Our most important decisions have paid off in growth," he said. Our research program now has us doing any number of things which we could scarcely have imagined in the early 1930's. Above all, it has given us scores of new products which have given us a powerful push in the direction of rapid growth.

"Another, perhaps more unusual, reason for our growth is that over the years we have kept an especially watchful eye on growth regions, and have located plants in several of these areas. The Pacific Northwest is a case in point.

"Still another reason for our growth concerns the security analysts. Until a decade ago Hooker stock was unlisted and closely held. But by the end of World War II it became clear that capital requirements for our expansion would necessitate listing our stock on the exchange. This was done in November, 1947.

"Within a short time substantial blocks of our stock had been bought by investment houses, and we found ourselves with some new owners who had a keen professional interest in our progress.

'Security Analysts' Role

"We quickly discovered that their representatives—the security analysts—had rather lofty ideas of where we were going and how soon we would get there. The representatives of investment houses, we find, act as a spur to management. This has been a quite unexpected advantage of being publicly owned.

"All of these factors—plus our management training program, our process study group, our grass roots budgetary control system, our general development department and many more—have helped to make us somewhat out of the ordinary—a growth company.

And as I have mentioned earlier a growth company makes out-of-the-ordinary demands upon its management. In this respect, a growth company bears about the same relation to a non-growth company that chess bears to checkers or jai alai to ping pong—one is vastly more demanding than the other and you must work proportionately harder to succeed.

Synthetic Rubber

—Continued from page 4

"maintenance of security would be vastly simplified if we could—if need be—produce types of rubber domestically which could take the place of natural rubber in large truck, bus, and airplane tires. The newly syn hesized rubbers hold this promise.

"It is believed that we can rely upon the private synthetic rubber industry to move from laboratory synthesis to commercial production of synthetic 'natural' rubber.

"Pilot plants are already being constructed on private initiative. The nature of the problems which may arise when quantity production is contemplated is as yet undefined.

"The government has available a number of means for assisting industrial development and expansion where such aid is found to be essential to national security.

"It is not now expected that any unique measures, such as would require new legislation, will need to be taken with reference to the development of capacity to produce synthetic 'natural' rubber."

The President's report to congress was accompanied by a report of the National Science Foundation on its study of disposition of the government rubber research laboratories at Akron, Ohio, and the government's support of rubber research conducted by universities and other research organizations.

The Science Foundation recommended that the government-sponsored research projects on rubber as such be terminated and that a program of research on polymers in general (of which rubber and elastomers generally are only examples) be substituted.

The Foundation also recommended that the laboratories at Akron be sold. Mr. Eisenhower approved both recommendations.

Glass Container Shipments: March

Shipments of machine-made glass containers during March totaled 12,170 thousand gross, an increase of 20 percent from the previous month's total and an increase of 8 percent over March, 1955. The following figures, in thousands of gross, represent shipments of glass containers for specific purposes:—

	March	February
Narrow Neck:—		
Medicinal and health supplies ..	1,432	1,302
Household and industrial.....	839	713
Toiletries and cosmetics.....	831	701
Wide Mouth:—		
Medicinal and health supplies...	415	398
Household and industrial.....	171	173
Toiletries and cosmetics.....	234	239

Trade Briefs

J. T. Baker Chemical Company, Phillipsburg, N. J., has honored George A. Fisher, supervisor of the acid department, for having been with the company fifty years.

Schering Corporation, Bloomfield, N. J., has added Bernard Rosen as a chemist, engaged in pharmaceutical chemistry research.

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House Unit Keeps

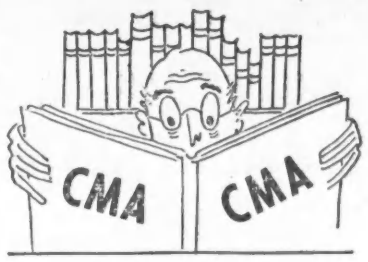
—*Continued from page 3*

paint, the committee has refused to budge from its opposition against closing the plants.

In reporting the defense appropriation bill to the house, the appropriations committee made no mention of the controversy over paint manufacturing, but took the department to task for the way it has administered the section.

During the hearings on the bill, assistant Secretary of Defense Thomas P. Pike protested that section 638 was imposing an unnecessary burden on the department because every proposed ending of a commercial activity had to be evaluated in the light of the section. Field commanders can no longer make final decisions, he said, and every action involving a commercial activity has to be referred to Washington and to congress.

The committee declared, however, that it was never intended that every action be submitted for congressional review, but only the significant actions involving the expenditures of funds. It criticized the department for submitting inconsequential actions for review, such as cases involving only part-time employment of civilian workers, but ignored a suggestion that all commercial activities involving $10,000 or less be exempted from review requirement.



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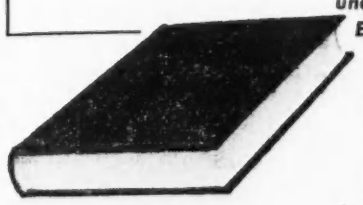

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